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LEGAL IMPLICATIONS OF UNITED STATES BALLISTIC MISSILE DEFENSE SYSTEMS

Keith M. Sorge

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A thesis submitted to the Faculty of Graduate Studies and Research
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ABSTRACT

Following the extensive use of ballistic missiles in the 1991 Persian Gulf War, there has been a renewed emphasis within the United States to develop and deploy anti-ballistic missile defenses.

This thesis examines whether the current ballistic missile defense programs of the United States comply with the limitations imposed by the 1972 Anti-Ballistic Missile Treaty between the Soviet Union and the United States.

The thesis begins with a review of the development of ballistic missiles and the systems designed to defend against them. Next an analysis of the ABM Treaty is offered, including its differing interpretations. The Treaty's legal restrictions are then applied to current ABM defensive systems in various stages of research and development. The thesis concludes with an examination of the various lawful possibilities to modify the restrictive provision of the Treaty.

RÉSUMÉ

Suite à l'utilisation massive de missiles balistiques lors de la guerre du golfe Persique en 1991, il y a eu un mouvement de pression aux États-Unis afin de développer et déployer un système de défense anti-missiles balistiques.

Ce mémoire examine les programmes actuels de défense contre les missiles balistiques afin de vérifier s'ils respectent les restrictions imposées par le *Traité concernant les limitations des systèmes anti-missiles balistiques* intervenu en 1972 entre l'Union Soviétique et les États-Unis.

La première partie du mémoire est un survol du développement des missiles balistiques ainsi que des systèmes de défense contre ceux-ci. En deuxième lieu, nous présentons une analyse du *Traité* et de ses différentes interprétations. Les limites légales imposées par le *Traité* sont ensuite appliquées aux systèmes de défense anti-missiles balistiques dans leurs différentes étapes de recherche et de développement. Finalement, ce mémoire fait un examen des différentes possibilités offertes afin de modifier légalement les dispositions limitatives du *Traité*.

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K.M.S.

18 August 1995

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INTRODUCTION

With the cessation of the Persian Gulf War there has been an increased emphasis in the United States on the need to develop ballistic missile defenses. That emphasis was only increased further with the recent changes in the composition of the United States Congress. In the words of the newly-elected Speaker of the House of Representatives, "we should be rapidly developing a capacity to defeat a limited missile threat."¹

The purpose of this paper is to review the legal issues surrounding the United States Department of Defense's efforts in the area of ballistic missile defense (BMD). Chapter I examines the evolution of ballistic missiles, and Chapter II describes the development of systems to counter these weapons. Chapter III outlines the ballistic missile defense programs the Department of Defense is currently planning or developing. The history, purpose and problems of the Anti-Ballistic Missile Treaty² (ABM Treaty) are discussed in Chapter IV. Chapter V analyzes the

¹ Mann, Republicans Seek to Remake NASA, Aviation Week and Space Technology, Dec. 5, 1994, at 18.

² The official title is the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, May 26, 1972. 23 U.S.T. 3435, T.I.A.S. No. 7503 [hereinafter cited as the ABM Treaty].

compatibility of the systems detailed in Chapter III with the ABM Treaty. Lastly, Chapter VI evaluates the process of changing the ABM Treaty, whether through interpretation, amendment or termination.

CHAPTER I: EVOLUTION OF BALLISTIC MISSILES

A. Early Development of Ballistic Missiles

The modern ballistic missile owes its development to the rocket.³ The art of rocketry had to be fully matured before the first ballistic missiles could take flight. The precise origin of the first use of rockets is unknown, but most scholars consistently credit the Chinese with the invention. Often cited for this presumption is the alleged use of rockets by the Chinese in a battle with the Mongols in A.D. 1232.⁴ The invention of rockets must be tied with the availability of black powder which the Chinese also are credited with discovering.⁵ The use of rockets by the world's military had an on-again off-again relationship roughly corresponding to the evolution of firearms and artillery. As firearms and artillery steadily improved,

³ A rocket is an object that travels over a preordained and fixed trajectory, whereas a missile can be guided while in flight towards its target. W. von Braun & F. Ordway III, History of Rocketry and Space Travel 86 (rev. ed. 1969).

⁴ D. Baker, The Rocket, the History and Development of Rocket and Missile Technology 26 (1978).

⁵ Id. at 23.

increasing range and accuracy, the rockets importance would wane.

The true potential of this new method of propulsion was not clearly realized until the pioneering works of the three universally recognized leaders of spaceflight theory--Konstantion E. Tsiolkovsky⁶, Robert H. Goddard,⁷ and Herman Oberth.⁸ Herman Oberth's vision resulted in the founding of the German Society for Space Travel (Vfr) whose membership was to include Wernher von Braun. In 1932, this group contacted the German Army for financial support of its rocket testing. Their needs suited each other - the Vfr

⁶ Konstantion Eduardovich Tsiolkovsky, (1857-1935), a Russian school teacher, was a self-taught master of physics and mathematics, and is recognized as the first to develop astronautical theories. He is considered the Father of Space Travel. He theoretically solved numerous issues surrounding the use of rockets, to include: how to escape the earth's gravitational field, confirming the necessary escape velocity; proposing that launches into space would be more efficient if done from the equatorial plane; computed the flight time to the moon; and detailed the benefits of multiple stage rockets. Id. at 16.

⁷ Robert H. Goddard, (1882-1945), combined theory with scientific testing. He has been called the Father of Modern Rocketry. His first experiments involved solid propellents culminating in 1919 with the publishing of a Smithsonian report, "A Method of Reaching Extreme Altitudes. These efforts were followed with research in the use of liquid propellents. He launched the first liquid propelled rocket in March 1926. His achievements were never fully recognized during his lifetime nor the potential for liquid propelled rockets. See generally von Braun & Ordway, supra note 3, at 42, Baker, supra note 4 at 27.

⁸ Herman Oberth, (1894-1989), whose love of rocketry and astronautics began at a very early age. By 15 he had designed a manned, multistage rocket. In 1917, he proposed the development of a liquid propelled, long range ballistic missile to the German War Department. In 1923 he published his first book, The Rocket into Planetary Space, which had a profound impact on modern rocketry and space travel. F. Winter, Rockets Into Space 19 (1990).

needed funding and the Army needed weapon systems not limited by the rearmament restrictions imposed on Germany in the Versailles Treaty. Eventually, von Braun was put in charge of rocket development and some years later his efforts for the Army led to the A-4 long range ballistic missile.

This rocket, redesignated the V-2 (Vergeltungswaffen Zwei, Vengeance Weapon 2), could carry a 2,200 lb payload up to 210 miles. On 6 September 1944, the first V-2s were launched against Paris, failing in the attempt. However, on 8 September 1944, the V-2 was used for the first time successfully against England. In all, more than 5,000 V-2s were built during the war with 4,300 launched against various targets. While the first use of ballistic missiles was too little too late to alter the outcome of World War II it was an omen of things to come.

The United States of America and the USSR quickly realized the strategic significance of ballistic missiles and their post-war efforts reflected this reality. Both countries took advantage of captured German scientists and V-2 technology, with differing degrees of success. Because the United States possessed a bomber fleet capable of long range nuclear attack, it gave a relatively low priority to the development of long range ballistic missiles.⁹ The Soviet position was considerably different.

⁹ "A top level scientific survey commissioned by the Air Force Chief of Staff, General Henry Arnold, concluded just after the war that long-range ballistic rockets were

One crucial stroke was to turn what appeared to be a handicap into a lasting advantage. The Soviets were far behind the United States in nuclear technology, and the Russian nuclear weapons were clumsy and bulky. United States planners decided to wait until smaller warheads were available to build ICBM's. The Soviets went ahead with the massive rockets needed to hoist their primitive bombs. The decision not only gave them a significant edge in ballistic missile technology for years, but was also a great factor in their leadership in space exploration.¹⁰

The first Soviet intermediate range ballistic missile, (IRBM), was launched in April 1956, a year before the United States launched its first IRBM; the first Soviet intercontinental ballistic missile, (ICBM), was launched in August 1957, fifteen months before the launching of the first US ICBM (Atlas). The Soviet ICBM, designated SS-6 "Sapwood" had twice the power of the Atlas and Titan¹¹ missiles, which had yet to fly. On 4 October 1957, the SS-6 carried the first artificial earth satellite, Sputnik 1, into orbit and the global reach of the Soviet's strategic forces suddenly became a fact. The symbolic importance of this achievement was enormous.¹²

This new threat spurred both the United States' satellite launch efforts and its ballistic missile programs.

feasible. It added, however, that such weapons were not likely to be available until the distant future. For the present, Air Force attention should be devoted to manned aircraft and particularly toward the most equally new jet airplanes. If any effort were to be devoted to long-range missiles, it should proceed cautiously by way of slower, less revolutionary, air-breathing vehicles." E. Beard, Developing the ICBM 5 (1976).

¹⁰ von Braun & Ordway, supra note 3, at 140.

¹¹ Titan was the second ICBM developed by the United States.

¹² Beard, supra note 9, at 6.

The Atlas was successfully launched in 1958 and the Titan in 1959. Both sides in the nuclear arms race increased their efforts, developing missiles with even greater payload capacity and accuracy. The two countries soon developed the full array of ballistic missiles - short range, medium range, intermediate range, as well as sea-launched ballistic missiles, and intercontinental ballistic missiles. As is the case with any new weapon system, as soon as it is introduced efforts are afoot to counter its effects.

B. Recent Wartime Use of Ballistic Missiles

It would take nearly four decades before ballistic missiles would again be used in conflict. In the course of the Iraq - Iran war, in 1982 Iraq fired the first Scuds¹³ at Iran. In retaliation, Iran acquired comparable missiles from Syria, Libya, China and North Korea and launched them at Iraq, beginning in 1985.¹⁴ During the eight-year conflict between these two countries more than 1,000 ballistic missiles had been launched.¹⁵ These weapons were often launched at cities rather than at military targets.¹⁶ During the so-called "War of the Cities" in 1988, Iraq fired

¹³ The Scud is a ballistic missile developed by the Soviet Union. There are a number of different variations.

¹⁴ Y. Sadowski, Scuds or Butter, The Political Economy of Arms Control in the Middle East 6-7 (1993).

¹⁵ K. Payne, Missile Defense in the 21st Century: Protection Against Limited Threats Including Lessons From the Gulf War 30 (1991).

¹⁶ Id.

approximately 200 ballistic missiles at Iranian cities.¹⁷

As a result of these attacks, one quarter of Tehran's population fled the city and the popular support for the war in Iran soon ended.¹⁸

Ballistic missiles were also used during the conflict in Afghanistan, with more than 1000 Scuds fired by the Kabul government at Mujahideen camps and bases.¹⁹ These weapons were used to replace bomber aircraft which were placed at great risk due to the effective use of Stinger anti-aircraft missiles by the Mujahideen. Ballistic missiles have also been used by Libya. In response to the U.S. air raid on Libya in 1986, a Scud-B was fired by Libya at a U.S. Coast Guard station located on an Italian island.

The significant factor in the increased emphasis on the development of U.S. ballistic missile defenses was the use of such missiles by Iraq in the Persian Gulf war. Iraq began receiving Scuds from the Soviet Union beginning in the mid 1970s.²⁰ The Iraqis modified Scud-Bs by "cannibalizing propellant and oxidizer tanks from some missiles to lengthen fuel tanks in others, and by reducing the payload from 1,000 kilograms to 200-300 kilograms."²¹ The modified Scud-B,

¹⁷ A. Karp, Ballistic Missile Proliferation, in Stockholm International Peace Research Institute, SIPRI Yearbook 1990: World Armaments and Disarmament 378 (1990).

¹⁸ Sadowski, supra note 14, at 6.

¹⁹ Payne, supra note 15, at 30; A. Karp, supra note 17, at 378.

²⁰ Lumpe, Gronlund, & Wright, Third World Missiles Fall Short, Bull. Atom. Sci., Mar. 1992, at 33 [hereinafter cited as Lumpe].

²¹ Id. at 32.

named "al-Husayn" and had a range of 600 kilometers.²² Almost 90 Iraqi ballistic missiles were launched against Coalition forces and Israeli cities with a resulting casualty toll of over 300.²³

C. Perceived Ballistic Missile Threat

To have an understanding of current efforts in U.S. ballistic missile defense development and their corresponding implications for the ABM Treaty, it is imperative to appreciate what policymakers and planners see as the threat. For it is this perceived threat which is the driving force in the anti-ballistic missile debate. Ever since the former Soviet Union and United States demonstrated the capability to launch ballistic missiles there have been efforts to neutralize the effectiveness of these new weapon systems.²⁴ The state of technology, politics, and perceived threat dictated the interest and efforts towards developing new defensive systems.

Currently, the political interest in this area is quite high. The recently elected Republican majority shows a strong interest in funding a number of different programs, both for providing a defense of the continental United

²² This variation supposedly had a number of structural flaws which caused flight instability and it would break-up on reentry. Id. The original modifications were to provide a capability to strike deep into Iran. Sadowski, supra note 14, at 6.

²³ Payne, supra note 15, at 30.

²⁴ See Chapter II for a discussion of these programs.

States - a national missile defense (NMD) system - as well as in a system to protect American forces and allies overseas, commonly referred to as a theater missile defense (TMD) system.²⁵ The Clinton Administration, though declaring "Star Wars"²⁶ dead, has maintained funding for theater missile defense systems, as well as for research in the area of a national missile defense system.²⁷

What is often cited as the justification for the renewed urgency for developing these systems is the Persian Gulf War. "For the United States and its allies, the war was a chastening experience. Scud missiles fell on Tel Aviv, Riyadh, and DHahran, where 28 U.S. soldiers died in their barracks."²⁸ Few who witnessed the seemingly daily broadcasts of Scud attacks and Patriot missile responses can argue against the fear these weapons can generate. From a

²⁵ See Schmitt, Now, After \$36 Billion Run, Coming Soon: 'Star Wars II', New York Times, Feb. 7, 1995, at A20 col. 1 (quoting Speaker of the House Newt Gingrich, "One day, mathematically, something bad can happen and you ought to have a minimum screen on a continentwide basis, and that's doable."). Matthews, Head of Strategic Command Backs Treaty With Russia, Air Force Times, Mar. 6, 1995 at 33 col. 1 (quoting Senator Robert C. Smith R-N.H., "We're very vulnerable to missiles as they proliferate around the world.").

²⁶ The phrase coined early in the debate for a National Defense System using space-based weapons.

²⁷ The structure of the current Department of Defense's ballistic missile defense program is based on the endorsement by President Clinton of the 1993 Department of Defense "bottom up review." See Ballistic Missile Defense Organization, 1994 Report to the Congress on Ballistic Missile Defense, 1-2 (1994), [hereinafter cited as BMDO Report], see also New York Times, Feb. 7, 1995, at A20 col. 3.

²⁸ Krepon, Are Missile Defenses MAD? Combining Defenses with Arms Control, Foreign Affairs, Jan.-Feb. 1995, at 19, 20.

technical viewpoint there is considerable debate as to the effectiveness of the Patriot missile system in the Gulf War,²⁹ (e.g., how often did the Patriot successfully intercept a Scud, did the Patriot cause more damage than it prevented from occurring). However, what cannot be minimized is the psychological benefit that was derived from having Patriot missile batteries in the area of hostilities. It appears clear that President of Iraq, Saddam Hussein, in launching Scuds at Israel, was trying to draw Israel into the conflict and to respond militarily, leading to a breakdown in Coalition support.³⁰ The Patriot missile systems and the psychological support they provided, helped prevent that result.

Though the efficacy of the Patriot system can be questioned, the reality of the proliferation of states with ballistic missile capability cannot.³¹ There are currently more than 15 third world nations that have ballistic missiles, and by the year 2000 it is anticipated that number will increase to 24.³² To cite but one example, North Korea

²⁹ Hersh, Missile Wars, The New Yorker, Sept. 26, 1994, at 86.

³⁰ Payne, supra note 15, at 27-8.

³¹ Nolan & Wheelon, Third World Ballistic Missiles, Scientific American, Aug. 1994, at 34.

³² See U.S. Department of Defense, U.S. Ballistic Missile Defense Programs 2 (1994) [hereinafter cited as BMD Programs]; I. Daalder, Strategic Defenses in the 1990s 2 (1991); Earle II, The Political Environment in Defending Deterrence: Managing the ABM Treaty Regime into the 21st Century 34 (A. Chayes & Doty eds. 1989) [hereinafter the edited book cited as Chayes & Doty]. It can be argued that the implications of this proliferation can be misleading. "This list of current and future ballistic missile states consists mainly of countries that are either not a threat to

has both manufactured and sold ballistic missiles.³³ North Korea did not receive missiles from the USSR, but instead reverse-engineered Scud-B missiles provided by Egypt in the late 1970s. These are often referred to as Scud-Cs and over 100 missiles were sold to Iran during the Iran-Iraq war. It is also projected that the future threat will involve ballistic missiles with longer range capabilities.³⁴ The North Koreans are reportedly developing two missile types with ranges greater than 1000 kilometers.³⁵ "After the turn of the century, some countries that are hostile to the United States might be able to acquire ballistic missiles that could threaten the Continental United States . . . over the next ten years we are likely to see several Third World

the United States, or are most unlikely to acquire missiles in the 1,500- to 3,000- kilometer range, against which the treaty non-compliant TMD systems are directed." Keeny, Jr., The Theater Missile Defense Threat to U.S. Security, Arms Control Today, Sept. 1994, at 3, 4. "An examination of current and potential ballistic missile states suggests that China--which has long had missiles capable of reaching the United States--is the only developing country that could possible pose a genuine threat to the United States in the foreseeable future." Lumpe, supra note 20, at 31. For a breakout of the type and range of ballistic missile in developing countries see, Factfile, Arms Control Today, Apr. 94, at 29; M. Navias, Ballistic Missile in Proliferation in the Third World 29-32 (1990).

³³ A. Karp, Ballistic Missile Proliferation, in Stockholm International Peace Research Institute, SIPRI Yearbook 1991: World Armaments & Disarmament 318-19 (1991).

³⁴ Payne, supra note 15, at 34. For example, "[i]n 1989, 1992 and again in 1994, India tested the Agni (Fire), which is designed to carry a 1-tonne payload 2500 km. . . . [Many observers] deduce that it will be deployed with a nuclear warhead as a signal to China, although most major targets in China would remain outside the Agni's range." E. Arnett, Military Technology: The Case of India, in Stockholm International Peace Research Institute, SIPRI Yearbook 1994: World Armaments & Disarmament 361 (1994).

³⁵ BMD Programs supra note 32, at 2.

countries at least establish the infrastructure and develop the technical knowledge that is necessary to undertake ICBM and space launch vehicle development."³⁶ There is also an increase in the number of states capable of acquiring weapons of mass destruction.³⁷ For example, India is reported to possess the material and technological ability to produce between 45-75 nuclear weapons in a few weeks.³⁸

With the disintegration of the Soviet Union and the end of the Cold War the initial euphoria for a world free from ballistic missiles has given way to the stark reality that the threat from attack by ballistic missile has increased.³⁹ It is this new threat which is driving the U.S. Department

³⁶ Id. (quoting testimony by CIA Director R. James Woolsey before the Senate Governmental Affairs Committee).

³⁷ "[F]or a nuclear device to be a credible threat, it needs a means of delivery. Ballistic missiles provide potentially accurate delivery. Simultaneous proliferation of nuclear and ballistic missile capability is of special concern, such as intermediate range Scud missiles in Iraq and North Korea and the Israeli Jericho missile. The longer range Chinese CSS-2 is a particularly worrisome export; it has already been acquired by Saudi Arabia. Although canceled in 1990, joint development of the Condor missile by Argentina, Egypt, and Iraq is another troublesome example." Deutch, The New Nuclear Threat, Foreign Affairs, Fall 1992, at 4.

³⁸ D. Albright, F. Berkhout, & W. Walker, World Inventory of Plutonium and Highly Enriched Uranium, in Stockholm International Peace Research Institute, SIPRI Yearbook 1993: World Armaments & Disarmament 161 (1993).

³⁹ "Qadhafi, Saddam Hussein, and the leader of the Palestine Liberation Front, Muhammed Abul Abbas each have expressed a desire for intercontinental ballistic missiles that could be used to threaten U.S. cities." Payne, supra note 15, at 31. "In a speech to university students in June 1990, Muammar Khadafi said, 'We must work day and night and step up our efforts to conquer space. . . . The United States puts satellites over our heads and tries to prevent Libya from reaching space and getting to the skies over America or England or occupied Palestine. Let's not lose any time.'" Lumpe, supra note 20, at 33.

of Defense's planning of ballistic missile defense program for both theater and national defense.⁴⁰

⁴⁰ There are many who argue that there is no foreseeable threat from third world countries, which may or may not be accurate, but regardless it is this perceived vulnerability to ballistic missile attack which is driving U.S. policy decisions. The United States is not the only country demonstrating a renewed interest in developing anti-ballistic missile systems. France is currently planning an "anti-Scud" defensive system. Project Matra De Satellite D'Alerte Antimissile, Air & Cosmos/Aviation International, 7 Juillet 1995, at 20.

CHAPTER II: EVOLUTION OF ANTI-BALLISTIC MISSILES SYSTEMS

A. Pre-Antiballistic Missile Treaty Systems

Ballistic missile defense concepts were born shortly after the first use of the German V-2. Within a month of the first missile attack on England special radar was developed which could detect V-2s once they climbed above 5,000 feet.⁴¹ At the same time, a defense system was contemplated that by tracking the incoming missiles a barrage of anti-aircraft projectiles could be fired in front of the missile causing its destruction. Eventually, it was decided that the damage from the predictable duds of the 320,000 rounds of anti-aircraft artillery, required for each V-2 intercept, would cause more damage than the V-2 itself, and the plan was abandoned.⁴² No sooner was the war over than studies conducted by the United States recommended the development of defenses against this new weapon system.⁴³

The United States antiballistic missile efforts grew out of a program designated Nike which was designed to develop a missile to be used against bombers and air-breathing missiles. The first missile designed to satisfy the ballistic missile threat was the Nike-Zeus.⁴⁴ The Nike-Zeus was a three staged missile carrying a 400

⁴¹ D. Baucom, The Origins of SDI, 1944-1983 3 (1992).

⁴² Id. at 4.

⁴³ Id.

⁴⁴ F. Barnaby, What on Earth is Star Wars? A Guide to the Strategic Defense Initiative 28 (1986).

pound nuclear missile. The system was designed to have ground-based radars guide the interceptor missile towards the reentry vehicle and the interceptor would be detonated when the missile was within range of the RV, destroying it.⁴⁵ Numerous other systems were looked at during this period in the early 1950s to protect against future nuclear threats.⁴⁶ The Nike-Zeus program was not deployed due to its limited capabilities and cost. A new program was initiated using more advanced systems, called Nike-X.

Nike-X developed two interceptor missiles, the Spartan and Sprint, to provide a layered defense, together with phased-array radars⁴⁷ and advanced computers.⁴⁸ During this period there was growing opposition in the scientific community against missile defenses because, it was argued,

⁴⁵ Office of Technology Assessment, Strategic Defenses: Ballistic Missile Defense Technologies 45 (1986) [hereinafter cited as OTA].

⁴⁶ These programs had some interesting features. A program called ARGUS was designed to explode a number of nuclear weapons in space with the resulting released electrons trapped in the Earth's magnetic field creating an umbrella damaging any inbound ICBM. Actual nuclear detonations in space demonstrated that the electron cloud would dissipate too quickly to be of any use. A research program called GLIPAR looked at how future technologies, to include lasers and particle beams could be used for ballistic missile defenses. A project called BAMBI (ballistic missile boost intercept) studied concepts for boost phase intercepts to include using space based tracking satellites to guide intercepts. Another concept called SPAD (space patrol active defense) was envisioned as containing prepositioned space-based interceptors.

⁴⁷ Phased-Array radar is radar with fixed faces, but which can generate several beams of radio pulses that are electronically steerable and that can be used to track many targets and direct a number of intercepting missiles. Baucom, supra note 41, at 19.

⁴⁸ OTA, supra note 45.

that the systems could be easily defeated. These concerns led then Secretary of Defense, Robert McNamara, to delay deployment of the Nike-X. When in October of 1964, the Chinese exploded a nuclear device and in May of 1966, detonated a thermonuclear device, these events along with mounting pressure by Congress to field a ballistic missile defense system, and reports the Soviets were deploying an ABM system, led the Johnson administration to decide to deploy a limited ABM system. "The proposed U.S. ABM would not attempt to protect U.S. cities against a large Soviet missile attack, but instead would offer a shield against the much smaller threats of a potential Chinese ICBM fleet or an accidental Soviet attack."⁴⁹ This ABM system was designated "Sentinel."

When the Nixon administration took office in January 1969, another review of the ABM program was conducted and the decision was made to suspend the Sentinel deployment. The administration decided it made better sense to deploy a different ABM system, one which was designed to protect not cities as the Sentinel systems was designed for, but ICBM silos.⁵⁰

The Soviet Union also began work on ballistic missile defense immediately following World War II. Soviet policy was to develop countermeasures at the same time as they

⁴⁹ OTA, supra note 45, at 48.

⁵⁰ This system was dismantled beginning in February 1976. It was thought that the new Multiple Independent Reentry Vehicles (MIRVs) of the Soviet Union would be able to easily overwhelm the system. Baucom, supra note 41, at 96.

began work on a new weapon system.⁵¹ Interestingly, the Soviet philosophy with respect to the development and deployment of a BMD system was completely contrary to the US philosophy. Whereas, the US required a highly reliable system prior to its deployment, the Soviets were willing to deploy a system knowing it would have operational problems, believing it was better to have a limited capability in place and improve the system over time.⁵² Thus, after the Soviets deployed a limited number of Griffon surface-to-air missiles with some ABM capability, they immediately followed with the deployment of the SA-5, which was another surface-to-air missile with some limited ABM capability.⁵³ By 1964, the Soviets had developed the Galosh - the NATO designation for the ballistic missile defense system deployed around Moscow. The Russian designation is the UR-96.⁵⁴ The Galosh originally comprised a liquid fueled, multi-staged missile which provided a single layer ABM defense for Moscow, using 64 reloadable above ground launchers.⁵⁵ An upgraded system had been developed with a two-layered defense.⁵⁶ The first layer would include Galosh modified missiles designed for exoatmospheric interception, with a second layer comprising a high-acceleration

⁵¹ Id. at 27.

⁵² Id. at 30.

⁵³ Id.

⁵⁴ Jane's, Weapons Systems 17 (1988-89).

⁵⁵ Id.

⁵⁶ Id.

endoatmospheric interception capability.⁵⁷ Both missiles carry nuclear warheads.

B. Strategic Defense Initiative (SDI)

To understand the Strategic Defense Initiative it is important to explain the origin of the rationale for the system. Following the decision to dismantle the Safeguard system the Department of Defense under Congressional scrutiny was limited to research only, with a limited budget.⁵⁸ During this period considerable research was done in the areas of computers and optical sensors.⁵⁹ However, the developments in directed energy weapons⁶⁰ caused the greatest renewed interest in developing an ABM system. In 1980, then Secretary of Defense, Harold Brown, ordered the Department of Defense to put a greater emphasis on the development of space-based, high energy lasers.⁶¹ "The development of such weapons and the possibility of deploying them in space not only promised a solution to the problem of ICBM vulnerability, but again raised the possibility of

⁵⁷ Id.

⁵⁸ Baucom, supra note 41, at 99-100.

⁵⁹ Id. at 100-103. Optical sensors are used to overcome the limitations of radar and provide a capability to attack incoming warheads at greater ranges.

⁶⁰ A directed energy weapon is a weapon that kills its target by delivering energy to it at or near the speed of light (e.g., lasers and particle beam weapons). OTA, supra note 45, at 322.

⁶¹ Baucom, supra note 41, at 109. A main reason for the emphasis for space-based lasers was that lasers have considerable problems when operating in the atmosphere leading to a weaker beam.

protecting the U.S. population, as had been the intention with Nike-X and Sentinel in the 1960s."⁶²

During this same period American strategists saw Soviet missile capabilities grow dramatically. This led to a concern that the Soviets would have the ability to launch a first strike to disarm the American ICBM fleet and still retain sufficient capability to destroy the U.S. if it attempted to retaliate.⁶³ By 1976, then Republican primary contender Ronald Reagan, had indicated his dislike for the doctrine of mutually assured destruction.⁶⁴ He compared it to "a situation in which two men attempt to control each other by pointing a cocked and loaded gun at the other's head. If either flinched, they both would die."⁶⁵ When Reagan became President he inherited a problem which had confronted the two previous presidents, a survivable basing mode for the United States' newest ICBM - the MX. Without some sort of deceptive basing it was believed that MX would not survive an attack by improved Soviet multiple independent reentry vehicles (MIRVs).

⁶² Id. at 111-12.

⁶³ Id. at 114.

⁶⁴ Id. at 130. An individual who certainly had a considerable impact on Reagan's interest in defensive systems was retired Lt. General Daniel Graham. Graham was Reagan's defense advisor in both his 1976 and 1980 election campaigns. Graham was a strong proponent of space based defenses. Following the 1980 election Graham founded High Frontier, an organization for analyzing space based defense. F. Blackaby, Space Weapons and Security, in Stockholm International Peace Research Institute, World Armaments and Disarmament: SIPRI Yearbook 1986 82 (1986).

⁶⁵ Baucom, *supra* note 41, at 130.

Confronted with this concern a number of policy-makers began looking to ballistic missile defense as a way to face the problem. Robert McFarlane, President Reagan's deputy assistant for national security affairs, was a strong proponent of ballistic missile defense, as were Admiral John Poindexter,⁶⁶ military assistant to the National Security Counsel, and Admiral James Watkins,⁶⁷ the Navy's Chief of Staff. Their reasoning was that the only way to confront the Soviets superiority in land-based ICBMs was to exploit the U.S. superiority in high technology.⁶⁸

President Reagan's vision for strategic defense was strongly influenced by their argument, as evidenced in the famous televised speech delivered by Reagan on 23 March 1983.⁶⁹ In this speech Reagan called on the scientific community to make "nuclear weapons impotent and obsolete," by creating a defense shield which would protect both the population and military installations.⁷⁰ Such a defensive system "would have to cope with some 8000 warheads among as many as 300,000 light decoys such as balloons, chaff and

⁶⁶ "Poindexter concluded that a strategic defense system would be popular with the American people while providing a 'disincentive to the Soviets to produce offensive systems and an incentive for them to initiate a nuclear pact.'" Id. at 183 (quoting John Poindexter from an interview with the author).

⁶⁷ "We were reaching a point where we were losing our hat, ass, and overcoat at Geneva. We had no bargaining chip, no strength, with which to negotiate. The Soviets could just sit at Geneva and watch us throw away all of our chips right here in Washington." Id. at 184 (quoting James Watkins from an interview with the author).

⁶⁸ Id. at 185.

⁶⁹ Blackaby, supra note 64, at 83.

⁷⁰ Id. at 84.

aerosols, and up to some 150,000 heavy decoys which might even include pieces of the bus."⁷¹ Following this speech Reagan ordered urgent studies to explore various ballistic missile defense systems, and in 1984 within the Department of Defense a special organization was established to accelerate research in ballistic missile defense technologies - the "Strategic Defense Initiative Organization."⁷²

The SDIO originally had plans for 15 major experiment programs that might have ABM capabilities.⁷³ These 15 experiments were to be conducted in four areas: sensor programs; directed energy weapons technologies; kinetic energy weapons technologies; and testing of fixed, ground-based ABM components.⁷⁴ The sensor program was designed to evaluate upgrading current satellite early warning systems, demonstrating space-based technology for tracking and identifying objects already in space and using optical sensors on air-borne platforms.⁷⁵ The directed energy programs were to include looking at the potential of chemical lasers in space, and experimenting with acquisition, tracking and aiming technology for space and ground-based weapon sensors.⁷⁶ The kinetic-energy weapons

⁷¹ B. Jasani, The Military Uses of Outer Space, in Stockholm International Peace Research Institute, World Armaments and Disarmament: SIPRI Yearbook 1986 134 (1986).

⁷² OTA, supra note 45, at 3.

⁷³ Id. at 267.

⁷⁴ Id.

⁷⁵ Id.

⁷⁶ Id. at 268.

programs were designed to prove the feasibility of space-based kinetic kill vehicles⁷⁷ and land and space-based electromagnetic gun capability.⁷⁸ These last two programs were designed originally to look at these technologies for potential anti-satellite use with a follow-on decision for their application as ABM interceptors.⁷⁹ Lastly, the program was to look at fixed ground-based launchers to demonstrate the capability to intercept strategic ballistic missiles, test a fixed land-based radar to discriminate between different reentry vehicles, and integrate these components.⁸⁰

However, eventually it became universally clear that the original vision of SDI would not be obtainable, for many decades, if ever.⁸¹ Growing criticism of SDI included the U.S. Congress, directing the Department of Defense to place the primary emphasis of SDI on developing cost effective options to defend U.S. retaliatory forces and not to concentrate on a defensive shield for the entire country.⁸² This lead to reinvestigation of possible missile defenses for ICBM silos, and important military installations, termed by some as Star Wars II.⁸³ However, this transition from

⁷⁷ Commonly referred to as Brilliant Pebbles.

⁷⁸ Id. at 269. An electromagnetic railgun launches either guided or unguided projectiles at a target using a magnetic accelerator.

⁷⁹ Id.

⁸⁰ Id.

⁸¹ Blackaby, supra note 64, at 84.

⁸² D. Waller, J. Bruce III, & D. Cook, The Strategic Defense Initiative Progress and Challenges 99 (1987).

⁸³ Id.

protecting the population to merely protecting retaliatory forces was short-lived.

C. Accidental Launch Protection System (ALPS)

In January 1988, Senator Sam Nunn, an influential member of the Senate Arms Service Committee, brought to the forefront the idea of a limited ballistic missile defense to protect against "the frightening possibility of an accidental or unauthorized missile launch."⁸⁴ This emphasis on limited protection was not new. U.S. Defense Secretary Robert McNamara had spoken along the same lines in 1967, when announcing that the U.S. would deploy the Sentinel system.⁸⁵ It was envisioned that the ALPS systems would be ABM Treaty compliant and based at Grand Forks Air Force Base, North Dakota.⁸⁶ The system's design comprised 100 land-based interceptor missiles in either a single or double layered defense. This new focus had considerable support, as well as many technical problems in trying to provide a wide area of defense from one ABM location.⁸⁷ The Bush

⁸⁴ Daalder, supra note 32, at 24 (quoting Sen. Nunn).

⁸⁵ See supra note 49 and accompanying text.

⁸⁶ This was the location of the previously mothballed Safeguard ABM system and the only location in the U.S. authorized for an ABM site in accordance with the 1974 Protocol to the ABM Treaty, see infra note 182 and accompanying text.

⁸⁷ Daalder, supra note 32, at 36-40; Johnson, Ground-Based ABM Systems, in Chayes & Doty, supra note 32, at 117-18. "Studies by Lockheed and McDonnell Douglas have concluded that as many as 1000 interceptors deployed at half a dozen sites would be required to protect the United States." J. Pike, Military Use of Outer Space, in Stockholm

administration, however, continued to emphasize the need to protect retaliatory forces.⁸⁸ This too would change.

D. Global Protection Against Limited Strike Systems
(GPALS)

President Bush in his January 29, 1991 State of the Union address declared a new direction for strategic defenses. This speech was given eleven days after the first reported Scud intercept in the Persian Gulf War. He provided that with technological advances, as evidenced by the successes of the Patriot missile, the U.S. could now defend civilians from ballistic missiles.⁸⁹ He stated that the new focus for SDI would be protection from limited ballistic strikes. This new Global Protection Against Limited Strikes (GPALS) was to be a research and development program with possible deployment in the future.⁹⁰ "GPALS would be intended to provide comprehensive protection against the type of deliberate strikes that might be launched by Third (i.e., non-Soviet) Parties at U.S. force and allies abroad, and eventually at the United States itself."⁹¹

International Peace Research Institute, SIPRI Yearbook 1989: World Armaments and Disarmament 69 (1989).

⁸⁸ Payne, supra note 15, at 11.

⁸⁹ Id. at 13.

⁹⁰ Id. at 14.

⁹¹ Id. at 15.

GPALS was to comprise 1000 independent space-based interceptors, "Brilliant Pebbles," and between 750 to 1000 land-based interceptors.⁹² Brilliant Pebbles were to provide the global coverage to the system by being autonomous interceptors possessing their own sensors to detect a ballistic missile and intercept it.⁹³ Brilliant Pebbles were originally designed for SDI, which called for orbiting 4,000 interceptors.⁹⁴ GPALS would combine both strategic ballistic missile defense with tactical ballistic missile defense.⁹⁵ The system was also to include space-based sensors, "Brilliant Eyes."⁹⁶ GPALS was to defend against an attack of up to 200 missiles, including shorter range tactical missiles (e.g. Scuds).⁹⁷ The emphasis on strategic defense was significantly decreased with the election of the Clinton administration.⁹⁸ President Bill Clinton has stated that it is not necessary to deploy massive space defenses, such as Brilliant Pebbles.⁹⁹ The new administration was in favor of developing tactical ballistic missile defenses, a better Patriot type defense.

⁹² Id. at 17.

⁹³ Id. at 21.

⁹⁴ Id. at 17; P. Clausen, Star Warriors Try Again, Bull. Atom. Sci., June 1991, at 9.

⁹⁵ Payne, supra note 15, at 18.

⁹⁶ Id.

⁹⁷ Clausen, supra note 94.

⁹⁸ See N.Y. Times, Feb. 7, 1995, at A20, col. 1.

⁹⁹ B. Clinton & A. Gore, Putting People First How We Can All Change America 43 (1992).

E. Short Range Ballistic Missile Defense System

Thus far this chapter has described weapon systems which have been either developed or funded to provide ballistic missile defense primarily of the continental United States. The weapons they would seek to protect against would be primarily long range strategic nuclear weapons. However, as we have seen, there have been systems designed as well to provide protection from shorter range tactical ballistic missiles.

The former Soviet Union was active in developing anti-tactical ballistic missile defenses. Some reports indicate that the Soviet SA-X-12 missile is a tactical ballistic missile interceptor.¹⁰⁰ In the 1980s it was tested against ballistic missiles with ranges up to 900 kilometers and speeds of approximately 2.7 kilometers per second.¹⁰¹ It has been argued that the SA-X-12 also has capabilities against some strategic missiles.¹⁰²

The Patriot is the most recognized of these anti-tactical ballistic missile weapon systems, as it is the only one which has had combat experience.¹⁰³ It was

¹⁰⁰ H. Lin, New Weapon Technologies & the ABM Treaty 16 (1988)

¹⁰¹ Mendelsohn & Rhinelanders, Shooting Down the ABM Treaty, Arms Control Today, Sept. 1994, at 8, 9.

¹⁰² The United States Arms Control and Disarmament Agency noted in 1986 that a system with anti-tactical ballistic missiles capabilities might have capabilities to intercept some strategic ballistic missiles RVs. However, the issue was never formally raised with the Soviet Union presumably because the United States was planning Patriot missile tests. Id.

originally designated the SAM-D, as it was designed in the 1960s as a surface-to-air missile to provide air defense.¹⁰⁴ The Patriot's development into a tactical ballistic missile defense system was to defend against the Soviet-designed Frog and Scud ballistic missiles.¹⁰⁵ Prior to the Persian Gulf War the Patriot weapon system went through two modifications. The first, Patriot Advanced Capability, Level 1 (PAC-1) consisted of software upgrades to, "enable the Patriot anti-aircraft radar and fire control system to engage high-angle missile targets, along with minor fuse improvements."¹⁰⁶ The second level of modification was the PAC-2 which improved the warhead on the Patriot missile and developed an improved fuse to increase the systems effectiveness against ballistic missiles.¹⁰⁷ The PAC-2 version of the Patriot missile system was used in the Persian Gulf War with considerable debate as to its effectiveness.¹⁰⁸

Other tactical ballistic missile defenses include the Hawk and Aegis systems. The Hawk was an anti-aircraft missile that has been tested against missile targets since

¹⁰³ See Hersh, supra note 29, at 86.

¹⁰⁴ See generally Id. at 87; H. Lin, supra note 100.

¹⁰⁵ See Lin, supra note 100. The Frog is a short range ballistic missile comprising different variations (i.e., Frog-4, Frog-5, Frog-7) with ranges of 50 to 70 kilometers and payloads of 250 to 450 kg depending on variation. The Scud is a medium range ballistic missile with a range of 280 kilometers and a 1,000 kg payload.

¹⁰⁶ Pike, Theater Missile Defense Programs: Status and Prospects, Arms Control Today, Sept. 1994, at 11, 12.

¹⁰⁷ Id.

¹⁰⁸ See Hersh, supra note 29. Pike, supra note 106, at 12.

the 1960s.¹⁰⁹ The Hawk in conjunction with the Patriot fire control radar was been used in successful intercept of missile at a distance and altitude of 8 kilometers.¹¹⁰ "The Aegis system for naval air defense was originally developed to counter a high-altitude air threat whose speed in terminal phase would have been comparable to that of some ballistic RVs in the later portion of their terminal phase."¹¹¹

¹⁰⁹ Pike, supra note 106.

¹¹⁰ Id.

¹¹¹ Lin, supra note 100, at 17.

CHAPTER III: PROPOSED BALLISTIC MISSILE DEFENSE SYSTEMS

The majority of current Department of Defense programs are in the field of theater missile defenses, where the perceived threat is greatest. The secondary emphasis is in the area of a national missile defense system. The last area of emphasis is in research on future systems.

A. Theater Missile Defense

Theater missile defenses are designed to protect U.S. forces, U.S. allies and other targets of vital interest from theater missile attack.¹¹² These defenses would be deployed to the area where and when the threat arises. The Department of Defense has identified five goals for the theater missile defense program.

1. A lower tier (terminal, endoatmospheric intercept capability with both air transportable and sea deployable capabilities to defend point and limited area asset targets, and to protect mobile ground forces.
2. An upper tier (midcourse, high endo/low exoatmospheric) intercept capability with both air transportable and sea deployable capabilities to extend intercept envelopes, provide broader area defense, assure multiple intercept opportunities, and minimize the ground effects of unconventional weapons.
3. Enhanced warning and surveillance capabilities including fixed and mobile tactical processing of launch detection data (from the Defense Support Program

¹¹² BMDO Report, supra note 27, at 2-1

(DSP), space early warning systems, or other means), extended midcourse tracking, and netted surveillance to support intercepts and broaden defense coverage.

4. Battle Management/Command, Control, Communications and Intelligence (BM/C³I) capabilities to tie together and manage the intercept and surveillance/warning capabilities and to coordinate TMD functions with the ballistic missile defense elements, under study, as part of the NMD.

5. Capability for boost phase intercept to destroy missiles equipped with weapons of mass destruction, countermeasures and/or clustered warheads before their release or to destroy attacking missiles over the attacker's territory.¹¹³

The development strategy consists of near-term improvements by enhancing existing systems while developing more comprehensive theater missile defenses for deployment by the end of the decade.¹¹⁴ The near-term improvements include upgrades of the Patriot Advanced Capability - 2 (PAC-2), and modifications of the TPS-59 radar and Hawk missile. The Patriot Quick Response Program is designed to identify and field improvements to correct shortcomings of the PAC-2 exhibited during the Persian Gulf War.¹¹⁵ The TPS-59 radar and Hawk weapon system were originally designed as a surface to air missile (SAM) to protect U.S. Marine Corps forces from attack by enemy close air support aircraft. The modifications of the TPS-59 radar and Hawk weapon system is to provide the U.S. Marine Corps

¹¹³ Id. at 1-4,1-5.

¹¹⁴ Id. at 2-6.

¹¹⁵ BMDO Report, supra note 27, at 2-9.

expeditionary forces a near-term capability against tactical ballistic missiles of limited range.¹¹⁶ Other near-term efforts include improvements to both launch detection systems by better integration of the data obtained from space sensors, and to sensor-cueing systems so as to limit the area the radar must search.

The Department of Defense has approved three programs to improve comprehensive theater missile defense by the end of the decade. These systems are: (1) Patriot Advanced Capability-3 (PAC-3), (2) Sea-Based Area Theater Ballistic Missile Defense; and (3) Theater High Altitude Area Defense (THAAD) system.¹¹⁷ The PAC-3 program is designed to upgrade the PAC-2 system by improving its radar and employing a new missile. The improved radar will, "increase detection range, provide positive target identification, improve the engagement of targets with reduced radar signature, increase target handling capability, increase firepower, and enhance survivability."¹¹⁸ The new missile for the system is the Extended Range Interceptor (ERINT), which is a hit-to-kill missile.¹¹⁹ To improve the missile's accuracy the ERINT uses small rocket motors to guide the interceptor in contrast to the aerodynamic controls on the Patriot.¹²⁰ The ERINT is smaller than the Patriot missile allowing a Patriot launcher

¹¹⁶ Id. at 2-10.

¹¹⁷ Id. at 2-16.

¹¹⁸ Id.

¹¹⁹ Id. The Patriot used an explosive proximity-fragmentation warhead.

¹²⁰ Pike, supra note 106, at 12.

to carry 16 ERINTs instead of four Patriot missiles.¹²¹

The purpose of the Sea-Based Area Theater Ballistic Missile Defense system is to provide an area defense utilizing the existing AEGIS system,¹²² a capability similar to the PAC-3.¹²³ The concept is to make the AEGIS system capable of detection, tracking and intercepting ballistic missiles with an improved SM-2 Block IV missile.¹²⁴ Along with the modifications to the missile, the AEGIS's computers will be upgraded to allow searches at higher elevations and longer distances to enhance detection and tracking of tactical ballistic missiles.¹²⁵ The system's purpose is to provide a rapidly deployable protection for forces that may have to fight their way into the theater or to protect coastal cities, ports and airfields.¹²⁶

The THAAD program, comprising the THAAD weapon system and the Theater Missile Defense-Ground Based Radar (TMD-GBR) surveillance and fire control radar system, is expected to "provide broad surveillance and a large intercept envelope to defeat missile threats directed against wide areas, dispersed assets, and strategic assets such as population centers and industrial facilities. THAAD will engage [the target] at high altitudes to minimize damage caused by debris and chemical/nuclear munitions."¹²⁷ The system is

¹²¹ Id.

¹²² BMDO Report, supra note 27, at 2-19.

¹²³ BMD Programs, supra note 32.

¹²⁴ BMDO Report, supra note 27, at 2-19.

¹²⁵ Id.

¹²⁶ Id. at 2-16.

¹²⁷ Id.

designed to be aircraft-transportable for quick insertion into threat areas.¹²⁸ The THAAD missile is a single stage, solid fuel, hit-to-kill missile, designed to intercept ballistic missiles in either the endoatmosphere or exoatmosphere.¹²⁹ The TMD-GBR will provide theater surveillance and fire control for the weapon--search, tracking and identification for THAAD.¹³⁰ This system should work in concert with point defenses, either the PAC-3 or Sea-Based TMD, to provide an upper and lower tiered defense. The THAAD system will depend on satellites for launch-warning information.¹³¹ The Department of Defense plans to purchase 1,422 THAAD missiles, 99 launchers and 18 radars.¹³²

B. National Missile Defense

Parallel with these theater missile defense systems, efforts will continue to improve ground-based systems to provide limited missile defense of the continental United States.¹³³ This program, titled the National Missile Defense (NMD) system as well as the Limited Defense System (LDS), is in response to the 1991 Missile Defense Act, as amended.¹³⁴

¹²⁸ Id.

¹²⁹ Id.

¹³⁰ Id.

¹³¹ Id. at 2-26.

¹³² Lockwood, Senators Appear Skeptical of ABM Treaty Modifications, Arms Control Today, Apr. 1994, at 17.

¹³³ Id. at 3-1. The defense of the continental United States has gone through numerous phases. See supra notes 58-99 and accompanying text.

The goal of the national system is to, "provide defense options and to reduce the time it would take to field such a system in response to emerging threats to the United States."¹³⁵ The projected research will include ground based interceptors, a ground based radar, a battle management, command, control, and communications complex (BM/C³), and a network of space and missile tracking systems (SMTS, formerly Brilliant Eyes).¹³⁶ It is important to note that there are no plans to currently field such a system: "[t]he basic strategy for NMD is to preserve the opportunity to field timely and effective ballistic missile defense for the U.S. homeland. . . . It is designed to develop the objective system capability by progressively establishing increasingly capable options to deploy."¹³⁷

The ground-based interceptor for NMD is planned to be a nonnuclear hit-to-kill weapon against Intercontinental ballistic missiles (ICBM) and submarine launched ballistic missiles (SLBM).¹³⁸ The interceptor will be designed to intercept the ballistic missile in the midcourse phase of its trajectory.¹³⁹ Current research efforts are concentrated on the exoatmospheric kill vehicle (EKV) section of the

¹³⁴ Missile Defense Act, 108 Stat. 2663.

¹³⁵ BMD Programs, supra note 32.

¹³⁶ BMDO Report, supra note 27, at 3-1.

¹³⁷ Id. This limit to only develop options may soon be lifted based on increased pressure from Congress to field a national missile defense system. See Schmitt, Senate Advances 'Star Wars' Revival Plan, New York Times, Aug. 4, 1995, at A-3.

¹³⁸ Id. at 3-6

¹³⁹ Id.

interceptor.¹⁴⁰ Research on the ground-based radar segment of the national missile defense will emphasize the need to detect and track a ballistic missile's reentry vehicle and provide support data to the battle management command, control and communication section.¹⁴¹ The NMD ground-based radar will be designed to operate autonomously or to expand its range by using cueing support from other ground or space-based radar.¹⁴²

The space segment of this program comprises Brilliant Eyes, a space-based sensor system to support strategic and theater ballistic missile defense.¹⁴³ The concept calls for a constellation of satellites to provide global tracking of ballistic missiles in their boost, post boost, and midcourse phases.¹⁴⁴ The satellites are to relay their data to the battle management, command, control, and communication section.¹⁴⁵ As an over the horizon sensor, the satellites are expected to provide support for the ground based interceptors of NMD as well as THAAD interceptors and the sea-based missile defense system.¹⁴⁶ The overall purpose is

¹⁴⁰

Id.

¹⁴¹

Id. at 3-8.

¹⁴²

Id.

¹⁴³

Id. at 3-10.

¹⁴⁴

Id.

¹⁴⁵

Id.

¹⁴⁶

Id. By combining SMTS with THAAD it will significantly increase the footprint of the area which THAAD can defend. See, Mosher & Hall, The Clinton Plan for Theater Missile Defenses: Costs and Alternatives, Arms Control Today, Sept. 1994, at 15. For a detailed analysis of the theoretical capabilities of a THAAD modeled tactical ballistic missile defense system see Gronlund, Lewis, Postol, & Wright, Highly Capable Theater Missile Defenses and the ABM Treaty, Arms Control Today, Apr. 1994, at 3.

to maximize the area which each system can defend.¹⁴⁷ Current Department of Defense plans, for what is termed an ABM Treaty compliant site, call for the deployment by early next century of 20 interceptors and a ground based radar at Grand Forks, North Dakota. The same plan would also require the services of DSP satellites and a constellation of 18 SMTS satellites.¹⁴⁸

C. Advanced Technology Development

In addition to these plans for theater and national missile defense, the defense establishment is engaged also in analysis of "potential future requirements and the technology needs of tomorrow."¹⁴⁹ The emphasis of this analysis is in the area of early boost phase intercepts. It is reasoned that boost phase intercepts result in debris falling back near the attack and far from the territory that is defended. The importance of this capability grows significantly when the intercepted missiles are chemical, biological or nuclear ballistic weapons. In addition, it is assumed that intercept in the early boost phase will simplify the identification problems caused by multiple warhead and penetration aids. The Department of Defense's emphasis is on space-based lasers, and kinetic energy weapons launched from either manned or unmanned aircraft.

¹⁴⁷ BMDO Report, supra note 27, at 3-10.

¹⁴⁸ Id. at 3-14.

¹⁴⁹ Id. at 4-1.

Of these programs the space-based laser is receiving the greatest attention. "The space based laser is the only major U.S. technology under development that can provide global, 24 hours, early boost phase intercept of both theater and strategic ballistic missiles."¹⁵⁰

The kinetic weapons boost phase intercept system will combine an off-board sensor to provide launch detection and early tracking of theater ballistic missiles, and a hit-to-kill interceptor on a manned or unmanned aircraft.¹⁵¹ The plan calls for this system to be able to engage the target during its ascent, either in the boost phase or after booster burnout.¹⁵² Also included in future development are space-based kinetic energy interceptors, such as Brilliant Pebbles.¹⁵³

These are the current priorities of the Department of Defense. These systems are designed to address the perceived threats from theater ballistic missiles and ballistic missiles aimed at the continental United States. It is these systems which will be reviewed for compliance with the ABM Treaty in Chapter Five.

¹⁵⁰ Id. at 4-3.

¹⁵¹ Id.

¹⁵² Id.

¹⁵³ Id. at 5-3.

CHAPTER IV: ANTI-BALLISTIC MISSILE TREATY

A. Events Leading Up to the ABM Treaty

The strengths and weaknesses of the ABM Treaty are best understood by reviewing the circumstances leading up to the signing of that Treaty. Soon after the advent of nuclear weapons, proposals to limit their proliferation and use were put forward. As early as 1946, the United States declared in the newly created Atomic Energy Commission of the United Nations, that "we must elect World Peace or World Destruction."¹⁵⁴ The plan submitted by the United States called for the establishment of an International Atomic Development Agency that would have exclusive control of all atomic energy activities which could be potentially dangerous to world security.¹⁵⁵ "If the Soviet Union would agree to such far-reaching international controls, the United States was prepared to hand over to the new agency both the data on which its own achievements were based and its stockpile of atomic weapons."¹⁵⁶

In 1955, the Soviet Union proposed to a United Nations disarmament session a plan to end nuclear tests and move towards "peaceful coexistence."¹⁵⁷ However, none of the

¹⁵⁴ Roberts, The Road to Moscow, in SALT: The Moscow Agreements and Beyond 7 (M. Willrich & J. Rhinelanders eds. 1974) [hereinafter the edited book is cited as Willrich & Rhinelanders].

¹⁵⁵ Id.

¹⁵⁶ Id.

¹⁵⁷ Id. at 11.

various proposals brought forward were successful. With no truly fruitful negotiations controlling nuclear weapons, The two nuclear superpowers continued to augment their inventories as quickly as their technologies and economies would allow.

It was not until 1966, when the Administration of President Johnson was confronted with the fact that the Soviet Union was deploying the Galosh anti-missile system around Moscow that negotiations commenced.¹⁵⁸ For two years the United States Administration and the Soviets negotiated when the Strategic Arms Limitation Talks (SALT) would begin.¹⁵⁹ During this period, responding to the increasing pressure from Congress, the Administration declared that the U.S. government would go forward with the deployment of the Sentinel ABM system. Defense Secretary McNamara said the system was to provide a thin defense against a Chinese attack or an accidental launch from the Soviet Union.¹⁶⁰ Eventually, on August 19, 1968, the two sides agreed on a visit by President Johnson to the Soviet Union to begin SALT

¹⁵⁸ Id. at 20.

¹⁵⁹ Id. at 21.

¹⁶⁰ The rationale for Sentinel is strikingly similar to current arguments for a National Missile Defense system. Just as there is today, there was considerable debate about the need for deploying a missile defense system. Jerome Wiesner, the former science advisor to President Kennedy, argued against deployment of Sentinel stating, "[w]e ought to regard the Sentinel as a bad joke perpetrated on us by Mr. McNamara and Mr. Johnson in an election year. It seems to me that their very rationalization--that it was to defend us against the Chinese but we would stop building it if the Russians agreed not to build one--demonstrates that well enough." Center for the Study of Democratic Institutions, ABM: Yes or No? 3 (1969).

negotiations.¹⁶¹ However, the next day the Soviet Union invaded Czechoslovakia and the SALT talks were put on hold.

In February 1969, after President Richard Nixon took office, the deployment of Sentinel was halted, and by the next month he announced his decision to deploy the Safeguard system.¹⁶² Following Congressional approval of Safeguard, the SALT talks began November 17, 1969, in Helsinki, Finland.¹⁶³ It would take two and a half years and seven sessions to reach an agreement.

The United States' position in negotiating SALT was often confronted with problems which were self-generated. A major problem for the negotiators was the constant threat of losing Safeguard's deployment as a bargaining chip by having Congress cancel funding for the program. The original plans for the deployment of Safeguard, prior to the SALT negotiations, called for 12 ABM locations. During SALT negotiations a critical issue was where and how many ABM sites would be allowed. As Gerard Smith, the head of the US

¹⁶¹ Roberts, The Road to Moscow, in Willrich & Rhinelanders, supra note 154, at 22.

¹⁶² This decision barely survived efforts of some in Congress not to fund the deployment. The amendment to bar funding failed by a vote of 50 to 51. Vice-President Spiro Agnew cast the tie-breaking vote. It is interesting to note that in a relatively short period of time the pressure from Congress switched directions from mandating a deployment of an ABM system to trying to stop the deployment of an ABM system. The main reason appears to be that as the Army began preparing for the establishment of Sentinel bases the U.S. population became increasingly alarmed at the prospect of nuclear interceptors so close to major cities and that these cities targeting priority would grow in Soviet nuclear strike planning. Baucom, supra note 41, at 39-41.

¹⁶³ Id. at 54.

SALT negotiating team and the Director of the Arms Control and Disarmament Agency, put it, "we watched with some concern the debate in the Senate on the Safeguard ABM program, judging that a congressional setback to Safeguard would take steam out of the ABM negotiation, by reducing any Soviet disposition to make concessions."¹⁶⁴

Another problem was the seemingly inconsistent positions of the Administration. The Administration's negotiating strategy was to offer many different options instead of one single, comprehensive position. This led at times to confusion for both the U.S. and Soviet negotiators. At one point the Administration was working with Congress to get Safeguard deployed, with initial deployments to protect ICBM locations where some construction had already begun; at the same time, it directed the U.S. negotiating team to propose that each country be allowed one ABM site limited to protecting the national capital or national command authority. Not surprisingly, within a week the Soviet Union responded favorably to the latter proposal.¹⁶⁵ The Soviets would thus be able to keep their Galosh system while the U.S. would in effect have nothing. Understandably, the U.S. reconsidered its position.¹⁶⁶

¹⁶⁴ G. Smith, Doubletalk: The Story of First Strategic Arms Limitation Talks 148 (1980).

¹⁶⁵ Frye, U.S. Decision Making for SALT, in Willrich & Rhineland, supra note 154, at 85.

¹⁶⁶ This problem was summed up as a lesson learned by Smith, "[T]he United States tabled a number of alternate ABM limits, thus giving the Soviets a plausible claim that a choice had been offered. When their pick did not suit our policy, confusion, delay and embarrassment resulted. We

What generated perhaps the greatest long-term implications for the U.S., was the bifurcated negotiating process. Formally there was the team led by Gerard Smith that would attend the SALT meetings in Helsinki and Vienna and negotiate with their Soviet counterparts. However, there were simultaneously continual back-channel negotiations between, then national security advisor, Henry Kissinger, and the Soviets. These involved initially Kissinger and Anatoly Dobrynin, the Soviet Ambassador to the United States, and later General Secretary Leonid Brezhnev. At one point the chief Soviet SALT negotiator, Vladimir Semenov, advanced a proposal to Gerard Smith that six weeks earlier had been rejected by Kissinger. This two-pronged approach created animosity on the U.S. side. The U.S. SALT team, "considered Dr. Kissinger and his staff less well prepared to cope with a number of questions than those working in Helsinki. The talks in the two cities occasionally got out of phase. . . . The result was some unavoidable ambiguity in the agreements finally concluded. . . ."¹⁶⁷ The seriousness of the problem this created is best summed up by the head of U.S. SALT team, Gerard Smith: "[s]everal covert back-channel negotiations deemed necessary by the President to break SALT deadlocks led to confusion

should avoid giving the other side a chance to pick and choose. We should defer making any offer until sure that it is in the American interest." Smith, supra note 164, at 465.

¹⁶⁷ Frye, U.S. Decision Making for SALT, in Willrich & Rhineland, supra note 154, at 93.

and discontinuities in the U.S. negotiating posture. Twice the White House reached agreements with the Soviets, the bases for which were not understood by the delegation. . . And not much effort was made to enlighten the bureaucracy, which was then called on to convert general accords into specific agreements."¹⁶⁸

The Soviet proposal of one ABM site to defend ICBMs and one site to defend the national command authority was not resolved until another back-channel meeting between Kissinger and Brezhnev in April 1972. President Nixon arrived in Moscow on May 22 and still some issues had not been resolved; namely, where the two ABM sites should be located relative to one another, and the scope of restrictions on the phased array radars capable of supporting an ABM system.¹⁶⁹ Last minute meetings were required so that the document could be signed. This rush due to political pressures to sign the agreement may have affected the quality of the final product.

The ABM Treaty was not the only document signed on May 26, 1972.¹⁷⁰ The U.S. throughout the negotiations the United

¹⁶⁸ Smith, supra note 164, at 468. These back-channel negotiations were not limited to Kissinger, "negotiations of issues of great technical complexity were conducted by the President of the United States and some confusion resulted." Id.

¹⁶⁹ Baucom, supra note 41, at 69-70.

¹⁷⁰ Actually the results of SALT I negotiations were four documents: (1) the ABM Treaty; (2) the Interim Agreement Between the United States of America and the Union of Soviet Socialist Republics on Certain Measures with Respect to the Limitation of Strategic Offensive Arms, May 26, 1972, 23 U.S.T. 3463, T.I.A.S. 7504; (3) Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the

States had wanted to combine the negotiations for controlling the proliferation of offensive arms with negotiations for limiting defensive systems. The result was an Interim Agreement and Protocol on offensive systems which was to remain in force for five years. These two documents set the number of ICBMs, SLBMs and submarines each side could have. This agreement is linked to the ABM Treaty in that it would not come into force until ratification of the ABM Treaty.¹⁷¹ However, it did nothing to limit mobile

United States of America and the Union of Soviet Socialist Republics, Sept 30, 1971, 22 U.S.T. 1590, T.I.A.S. 1590; and (4) Agreement Between the United States of America and the Union of Soviet Socialist Republics on Measures to Improve the USA-USSR Direct Communications Link, Sept. 30, 1971, 22 U.S.T. 1598, T.I.A.S. 7187. The first two deal with arms control. The second two were signed on 30 September 1971. These last two documents were not treaties but were considered executive agreements therefore not requiring ratification or correspondingly advise and consent by the U.S. Senate. A document which was signed three days later was the Declaration on Basic Principles of Relations Between the United States and the Soviet Union, May 29, 1972, Dept. St. Bull., June 1972, at 898. Of the documents signed the last was considered the most important by the Soviets. It is similar to a code of conduct for the mutual relations between the parties. N. Calvo-Goller & M. Calvo, The SALT Agreements Content - Agreement - Verification 4 (1987) [hereinafter cited as Calvo]. "[T]he Soviet decision to approve the treaty may well have been motivated by strategic and political purposes quite at variance with endorsement of a principle of mutual vulnerability. To begin with, a primary political-military purpose of the USSR in the SALT I Interim Agreement, the ABM Treaty, and the simultaneous statement on Basic Principles of U.S.-Soviet relations was probably to ratify Soviet superpower status and nuclear 'parity' thus 'closing the books' on the 1962 Cuban Missile crisis and underlining the Soviet Union's reduced susceptibility to U.S. pressure and its greater political freedom." D. Yost, Soviet Ballistic Missile Defense and The Western Alliance 92 (1988).

¹⁷¹ Interim Agreement Between the United States of America and the Union of Soviet Socialist Republics on Certain Measures with Respect to the Limitation of Strategic Offensive Arms May 26, 1972, Art. VIII, 23 U.S.T. 3425,

ICBMs, MIRVs, bombers, or forward based systems. It merely resulted in directing in what areas future offensive arms buildups would take place. It failed to limit the growth of nuclear weapons.

What these two agreements in effect did was to institutionalize the doctrine of mutually assured destruction (MAD).¹⁷² A doctrine which provides that each side needs a sufficient number of invulnerable strategic weapons to ensure it can retaliate after a surprise attack by the other side.¹⁷³ Thus, both the Soviet Union and the U.S. could be confident that neither could launch a nuclear strike without inviting an equally devastating response.¹⁷⁴ It made millions of Americans and Russians veritable hostages.¹⁷⁵ MAD required that to protect your people from nuclear attack they must be left unprotected.¹⁷⁶

B. The ABM Treaty and Supporting Documents

The legality of any ballistic missile defense system which may be developed by the United States must be analyzed against the ABM Treaty. The Treaty was signed by President Richard Nixon, for the United States, and General Secretary Leonid Brezhnev, for the Union of Soviet Socialist

T.I.A.S. 7503.

¹⁷² Id. at 71.

¹⁷³ Frye, U.S. Decision Making for SALT, in Willrich & Rhineland, supra note 154, at 68.

¹⁷⁴ Id.

¹⁷⁵ Id.

¹⁷⁶ Id.

Republics,¹⁷⁷ on 26 May 1972 in Moscow. The U.S. Senate gave its advise and consent on August 3, 1972, with ratification by the President following on 30 September. The Treaty entered into force on 3 October 1972.

The Treaty itself is a fairly short document, comprising a preamble and sixteen articles. In addition, there are seven "agreed interpretations." These were initialed by Gerard Smith for the U.S. and Anatoly Semenov for the USSR.¹⁷⁸ There are also five "common understandings," which were mutually agreed upon interpretations, but which were not signed or initialed by both sides. The initialed "agreed interpretations" and "common understandings" were positions initially proposed for inclusion into the ABM Treaty itself, but for some reason were left outside the Treaty.¹⁷⁹ A Protocol signed by Richard Nixon and Leonid Brezhnev in Moscow on 3 July 1974 (entered into force on 24 May 1976) reduced the number of ABM sites allowed under the Treaty to one.¹⁸⁰

The wording of the ABM Treaty is not always very precise, indicating the compromises which had to be accepted to ensure agreement. This lack of precise wording guaranteed a range of interpretations in the future.

¹⁷⁷ With the breakup of the former Soviet Union, Russia has assumed these international responsibilities.

¹⁷⁸ Id. at 125.

¹⁷⁹ Id.

¹⁸⁰ Its official title is: Protocol to the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, July 3, 1974, 27 U.S.T. 1647, T.I.A.S. 8276.

The Treaty's preamble enunciates the Parties recognition that limiting anti-ballistic missile systems will aid in curbing the strategic arms race. It asserts a connection between missile defenses and offensive strategic nuclear arms and that limitations placed on both will positively affect further negotiations on strategic arms. Article I states the overall purpose of the Treaty, mandating that each party will not deploy an ABM system for the defense of its territory, or a region of its territory, except in conformance with the Treaty. By agreeing to this restriction the two countries intended, at least at that time, to ensure that both were exposed to the threat of nuclear ballistic missiles in the hope that neither would dare to initiate a nuclear attack.¹⁸¹

Article II paragraph 1 is of such overriding importance to an analysis of the Treaty, to merit quotation in full:

For the purposes of this Treaty an ABM system is a system to counter strategic ballistic missiles or their elements in flight trajectory, currently consisting of:

(a) ABM interceptor missiles, which are interceptor missiles constructed and deployed for an ABM role, or of a type tested in an ABM mode:

(b) ABM launchers, which are launchers constructed and deployed for launching ABM interceptor missiles; and

(c) ABM radars, which are radars constructed and deployed for an ABM role, or of a type tested in an ABM mode.

¹⁸¹ See supra notes 172-76 and accompanying text.

Under Article III each party can have two ABM sites, with a deployment radius of 150 kilometers. One can be for the protection of the national capital and the other protecting an area containing ICBM silos. For each of these systems only 100 interceptor missiles and launchers are allowed. This paragraph also provides the limitations on ABM radars for each site: for the ICBM missile silo location no more than two phase-array radars and 18 smaller radars; for the national capital system, 6 circular radar complexes of a diameter of no more than 3 kilometers.

Article III is the only part of the ABM Treaty which is modified by the 1974 Protocol. The Protocol reduced the number of ABM sites to one for each country. Its obvious purpose was to further limit each country's ABM capability. The United States chose to protect an ICBM site and the USSR Moscow.¹⁸² The preamble to the Protocol contains some interesting insight into the development of arms control policies of the two countries. In the ABM Treaty the preamble expresses as the objective of the parties the achievement at the earliest possible date of nuclear disarmament as well as general disarmament. The preamble to the Protocol does not contain any such phrasing, mentioning merely that the aim is to limit offensive strategic arms.

Article IV of the Treaty provides that the limitation to ABM sites did not include ABM systems or their components

¹⁸² This reflected the efforts of both countries at the time--with the U.S. ICBM site at Grand Forks, North Dakota.

used for development or testing and located within agreed test ranges. Article V mandates that each party will not develop, test, or deploy ABM systems or components which are sea-based, air-based, spaced-based or mobile land-based. Article V also prohibits multiple missiles on a single launcher and rapid reloading capability ABM launchers. Clearly, a benefit of this last prohibition is that it is easier to verify the number of launchers/missiles by "national technical means"¹⁸³ (NTM) if ABM launchers cannot fire more than one missile from its platform or silo.

Article VI paragraph (a) is another Treaty provision directly relevant to an analysis of new defensive systems. It reads:

[t]o enhance assurance of the effectiveness of the limitations on ABM systems and their components provided by the Treaty, each Party undertakes: (a) not to give missiles, launchers or radars, other than ABM interceptor missiles, ABM launchers, or ABM radars, capabilities to counter strategic ballistic missiles or their elements in flight trajectory, and not to test them in an ABM mode

Article VI requires that early warning radars for strategic missile attack must be on the periphery of the national territory and pointed outwards. This last clause would prevent a party from increasing its ABM radar capabilities by merely stating that the radar is only for early warning and not ballistic missile defense.

¹⁸³ See infra note 185 and accompanying text.

Article VII stipulates that ABM systems, consistent with the Treaty, can be modernized or replaced. Article VIII provides for dismantling ABM systems or their components in excess of the Treaty limits. This section required the dismantling of the ABM system that was under construction at Malstrom AFB, Montana, which was one of the original Safeguard sites. Article IX prohibits the deployment and transfer to another country of ABM systems. It would defeat the purpose of the Treaty if a party could protect a greater area of its territory, than allowed by the ABM Treaty, by simply stationing the protective systems in other countries on the periphery of the nation. Article X merely reiterates a principle of international law that a state should not assume international obligations inconsistent with the Treaty.¹⁸⁴ An undertaking by the parties to continue to negotiate limiting strategic offensive arms appears in Article XI.

Article XII has considerable significance beyond the boundaries of the ABM Treaty. It was the first formal recognition that satellite reconnaissance was not considered a violation of international law by the parties to the Treaty. The Article allows for using "national technical means" (satellite reconnaissance) to verify compliance with the terms of the Treaty. In addition, the parties agreed not to use methods designed to conceal their activities from

¹⁸⁴ I. Brownlie, Principles of Public International Law 616 (4th ed. 1990).

surveillance.¹⁸⁵

Article XIII sets up a Standing Consultative Commission to perform a number of important functions, including consideration of "questions concerning compliance with the obligations assumed and related situations which may be considered ambiguous."¹⁸⁶ This arrangement, a first in Soviet-United States treaty relations, was to continue as long as the Treaty was in force.¹⁸⁷ Under Article XIV the parties agreed to review the Treaty at a minimum every five years. Although the Treaty is of unlimited duration, it provides for withdrawal due to "extraordinary events" (Article XV).

The seven Agreed Statements attached to the ABM Treaty cover a variety of subjects. These initialed statements, along with the Common Understandings, are as binding on the two countries as the text of the Treaty.¹⁸⁸ Agreed Statements A, B, and F deal with location and size of radars; Statement C quantifies the distance between ABM sites; Statement E precludes multiple independent guided warheads; and statement G prohibits transfer of technological descriptions to other states. Lastly, Agreed Statement D addresses future systems and was of particular

¹⁸⁵ For a discussion on concealment methods see H. Hough, Satellite Surveillance 129-42 (1991).

¹⁸⁶ ABM Treaty, supra note 2, Art. XIII. For a discussion of the Standing Consultative Commission see notes 271-87 and accompanying text.

¹⁸⁷ Calvo, supra note 170, at 5 (1987).

¹⁸⁸ Rhinelander, The SALT I Agreements, in Willrich & Rhinelander, supra note 154, at 125.

importance during the Star Wars debate.¹⁸⁹ It states,

In order to insure fulfillment of the obligation not to deploy ABM systems and their components except as provided in Article III of the Treaty, the Parties agree that in the event ABM systems based on other physical principles and including components capable of substituting for ABM interceptor missiles, ABM launchers, or ABM radars are created in the future, specific limitations on such systems and their components would be subject to discussion in accordance with Article XIII and agreement in accordance with Article XIV of the Treaty.

Four of the five Common Understanding were initiated by the U.S. Delegation and one by the Soviets. They deal with the location of ICBM defenses, ABM test ranges, mobile ABM systems, and the Standing Consultative Commission. In Common Understanding E the two countries agreed not to act contrary to the Treaty provisions during the period from signature to ratification. In addition, the U.S. made four unilateral statements. These are meant to reflect the United States' position on items it believed unresolved by the Treaty.¹⁹⁰ "The juridical effects of such a statement in the context of multilateral accords is to create an obligation

¹⁸⁹ See infra notes 200-12 and accompanying text.

¹⁹⁰ "[T]he practice in the Salt 1 negotiations when the Soviets refused to accept a major U.S. position was not simply to walk away in silence. A special device, the unilateral statement, was used to deal with such situations. These statements acknowledge that the parties have failed to reach agreement on a point of particular interest to the United States and assert in substance that the United States will regard conduct inconsistent with the U.S. position as inconsistent with the agreement." Chayes & Chayes, Testing and Development of "Exotic" Systems Under the ABM Treaty: The Great Reinterpretation Caper, 99 Harv. L. R. 1956-71 (1986).

upon the other side to contest this statement in due time so as to avoid being bound to the position expressed therein under the theory of estoppel."¹⁹¹

Of particular importance was Unilateral Statement A which provided that if there was no agreement within five years for greater limits on strategic offensive arms, that might be a basis for withdrawal from the Treaty by the United States. Of those remaining, Unilateral Statement B is directly relevant to reviewing defensive systems compliance with the ABM Treaty. This Statement describes what the U.S. considers to be tested in an "ABM Mode." It does this by offering examples of the components of an ABM system as defined in Article III, namely launchers, interceptors and radars. The example which has caused the greatest controversy covers interceptors. The Statement declares that the U.S. will consider an interceptor to be tested in an ABM mode when,

an interceptor missile is flight tested against a target vehicle which has a flight trajectory with characteristic of a strategic ballistic missile flight trajectory, or is flight tested in conjunction with the test of an ABM interceptor missile or an ABM radar at the same test range, or is flight tested in conjunction with the test of an altitude inconsistent with interception of targets against which air defenses are deployed. . . .

Until January 1993, this comprised the totality of the published agreements between the USSR and U.S. concerning ABM systems. It was the practice of the Standing

¹⁹¹ Calvo, supra note 170, at 12-13.

Consultative Commission to classify all their documents.¹⁹² This was not a requirement, but the SCC regulations provide that neither party should make the proceedings public unless both Commissioners expressly consent.¹⁹³ In 1993, for the first time, the SCC declassified four agreements relevant to understanding the ABM Treaty.¹⁹⁴ The first of these agreements dates from 1974 and deals with dismantling and destroying ABM components.¹⁹⁵ In 1976 there was a protocol added to this agreement.¹⁹⁶ However, neither of these documents deals with the subject matter of this inquiry.

A third agreement provides critical insight into what the parties understood regarding three items: ABM test ranges referred to in Article IV of the Treaty, the phrase tested in an ABM mode, and use limits on air defense radars at ABM test ranges.¹⁹⁷ This document signed in 1978 is titled, the "Agreed Statement Regarding Certain Provisions of Article II, IV, and VI of the Treaty Between the United States of America and the Union of Soviet Socialist

¹⁹² Graybeal & McFate, More Light on the ABM Treaty: Newly Declassified Key Documents, Arms Control Today, Mar. 1993, at 15 [hereinafter cited as Declassified Documents].

¹⁹³ Standing Consultative Commission on Arms Limitation: Regulations, 30 May 1973, No. 8, 24 U.S.T. 1124, T.I.A.S. 7637.

¹⁹⁴ Declassified Documents, supra note 192, at 15.

¹⁹⁵ Its official title is the Protocol on Procedures Governing Replacement, Dismantling, or Destruction, and Notification Thereof, for ABM Systems and Their Components, July, 3 1974. Id. at 16.

¹⁹⁶ Its official title is the Supplementary Protocol to the Protocol on Procedures Governing Replacement, Dismantling or Destruction, and Notification Thereof, for ABM Systems and Their Components of July 3, 1974, Oct. 28, 1976. Id.

¹⁹⁷ Id.

Republics on the Limitation of Anti-Ballistic Missile Systems of May 26, 1972, and the Utilization of Air Defense Radars at the Test Ranges Referred to in Article IV of That Treaty (1978 Agreed Statement)." When originally negotiating the ABM Treaty an area of contention between the parties was placing limits on upgrades to SAM systems. The U.S. was initially concerned that Soviets would upgrade their SAM sites, giving them ABM capabilities. The Soviets, on the other hand, felt the U.S. was trying to limit their ability to improve their SAM systems to counter the U.S. bombers and air-to-surface missiles.¹⁹⁸ After two years of negotiations the parties clarified the term "tested in an ABM mode." The 1978 Agreed Statement provides that the phrase "strategic ballistic missiles or their elements in flight trajectory" also refers to "ballistic target-missiles which, after being launched, are used for testing these ABM systems components in an ABM mode, and the flight trajectories of which, over the portions of the flight trajectory involved in such testing, have the characteristics of the flight trajectory of a strategic ballistic missile or its elements." The document further states that "tested in ABM mode" includes testing whether the interception was successful or not. According to this statement, should an ABM interceptor missile be able to reach the target without radar assistance then that missile

¹⁹⁸ Id. at 16.

will require further discussions in the SCC. Most of the 1978 Agreed Statement discusses the limits on radars.

The fourth agreement further clarified the 1978 Agreed Statement concerning the use of air defense radar located at test ranges.¹⁹⁹ The intent was to prohibit the use of air defense radar concurrent with the testing of ABM interceptors or the launching of strategic ballistic missiles.

C. The Great Interpretation Debate of the 1980s

On 23 March 1983, President Ronald Reagan delivered a speech which eventually led to one of the longest debates about treaty interpretation in modern times.²⁰⁰ The number of books and articles written about the interpretation of the ABM Treaty following Reagan's speech are legion and more than adequately cover this area of inquiry.²⁰¹ Nevertheless, a legal analysis of compliance with the ABM Treaty requires

¹⁹⁹ Its official title is: Common Understanding Related to Paragraph 2 of Section III of the Agreed Statement of November 1, 1978, Regarding Certain Provisions of Articles II, IV, and VI of the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems of May 26, 1972, and the Utilization of Air Defense Radars at the Test Ranges Referred to in Article IV of That Treaty, June 6, 1985, Id. at 19.

²⁰⁰ Speech on defense spending and defensive technology broadcast on U.S. nationwide radio and television.

²⁰¹ President Reagan's initiative created a whole cottage industry in books and articles debating the terms of the ABM Treaty. See generally R. Garthoff, The Reinterpretation of the ABM Treaty, Policy Versus the Law (1987); Chayes & Chayes, supra note 190; Sofaer, The ABM Treaty and the Strategic Defense Initiative, 99 Harv. L. R. 1972-85 (1986).

a re-visit, however briefly, the great interpretation controversy of the 1980s.²⁰²

In his speech President Reagan stated,

[w]hat if free people could live secure in the knowledge that their security did not rest upon the threat of instant U.S. retaliation to deter a Soviet attack, that we could intercept and destroy strategic ballistic missiles before they reached our own soil or that of our allies? . . . Tonight, consistent with our obligations of the ABM Treaty and recognizing the need for closer consultation with our allies, I'm taking an important first step. I am directing a comprehensive and intensive effort to define a long-term research and development program to begin to achieve our ultimate goal of eliminating the threat posed by strategic nuclear missiles."²⁰³

From this speech the "Strategic Defense Initiative" (SDI) was born. It was not until October 1985 that the Administration made public its interpretation of the ABM Treaty. Robert McFarlane, the national security adviser at the time, stated that not just research, but development and testing of ABM systems based on new physical principles was permitted by the ABM Treaty.²⁰⁴

The more scholarly legal reasoning for the Administration was provided by Abraham D. Sofaer, then the Legal Advisor to the Department of State. He argued that the restrictions in Article V not to develop, test, or

²⁰² For the purpose of this paper the terms narrow and broad will be used to define the different interpretations given to the ABM Treaty during this debate.

²⁰³ D. Waller, J. Bruce III, & D. Cook, The Strategic Defense Initiative Progress and Challenges 154 (1987).

²⁰⁴ Dept. of St. Bull., Dec. 1985, at 32, 33.

deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based, are limited to the Treaty's definition of an ABM system and to nothing else. According to Sofaer the main purpose of the ABM Treaty was never meant to stop research, development, and deployment of future systems, (e.g., lasers and particle beam weapons). Therefore, because the Treaty left future systems free for development and deployment, the parties negotiated Agreed Statement D to address this unresolved issue. Agreed Statement D is the only document that addresses future systems in the context of the ABM Treaty. The purpose of Agreed Statement D was to provide that if future systems are created, then before they are deployed, (not researched, tested, or developed), limitations on them would be negotiated within the Standing Consultative Commission.²⁰⁵

The response to this interpretation from commentators,²⁰⁶ U.S. legislators²⁰⁷ and numerous individuals involved with negotiating the ABM Treaty²⁰⁸ was quick and condemning. The argument put forward by critics stressed that the purpose and scope of the ABM Treaty is clear, and that the broad interpretation is merely a legalistic attempt to allow SDI development in disregard of the unambiguous

²⁰⁵ See Sofaer, supra note 201.

²⁰⁶ See Chayes & Chayes, supra note 190.

²⁰⁷ See Nunn, ABM Reinterpretation 'Fundamentally Flawed', Arms Control Today, Sept. 1986, at 3.

²⁰⁸ See Rhinelander, How to Save the ABM Treaty, Arms Control Today, May 1985, at 1.

limitations in the ABM Treaty. Their argument begins with the assertion that the overall purpose of the Treaty is to restrict both parties from developing ABM systems, regardless of technologies or components. When in Article II, the Treaty defines ABM systems as systems "currently" consisting of ABM interceptors, launchers and radars, they argue, this is a functional definition, and not intended to be all-inclusive of what systems the Treaty limits. Therefore, when the Treaty uses the word "currently" it is only indicating what ABM systems were in 1972 available, and is not attempting to limit the scope of the Treaty. Thus, the definition in Article II being functional, limits ABM systems based both on future and current technologies. The only exception to this blanket prohibition, the argument continues, is the two land-based systems allowed in Article III. In accord with this reasoning, the prohibition in Article V to not "develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based,"²⁰⁹ also covers systems based on future technologies; any future technology development would be limited to the fixed land-based systems as allowed in Article III.

Concerning Agreed Statement D, the critics explained, it does not refer to issues that were not resolved in the ABM Treaty, rather it was included to insure that if land-based future technology was created that it would be

²⁰⁹ ABM Treaty, supra note 2, Art. V.

discussed to insure it provided no greater capability than allowed in Article III for land-based systems. For example, if a land-based laser for ABM defense was created, before deployment it would have to be addressed in the SCC to bring it in accord with the limited defense capabilities, by allowing only 100 interceptor missiles.²¹⁰

Both sides in the interpretation debate argued the soundness of their position relying on the text of the Treaty, its negotiating and legislative history, and statements from the negotiators.²¹¹ To assess the legality of the current systems it is not necessary to take a position as to which interpretation is the correct one. This is because since 1985 all U.S. administrations have declared their intention to follow the narrow interpretation of the ABM Treaty.²¹² It is that interpretation which will be used to review current DoD programs. Therefore, any future ABM system permitted under the Treaty cannot be a

²¹⁰ Chayes & Chayes, supra note 190.

²¹¹ An excellent presentation of the opposing legal arguments is provided in Chayes & Chayes, supra note 190, for the narrow interpretation, and Sofaer, supra note 201, for the broad interpretation.

²¹² For that matter, the Reagan Administration stated that they would follow the narrow interpretation. This statement came only eight days after the first introduction of the broad interpretation. "It is our view, based on a careful analysis of the treaty text and negotiating record, that a broad interpretation of our authority is fully justified. This is, however, a moot point; our SDI research program has been structured and, as the President has reaffirmed last Friday, will continue to be conducted in accordance with a restrictive interpretation of the treaty's obligations." Arms Control, Strategic Stability, and Global Security: Secretary Shultz's Address before the North Atlantic Assembly in San Francisco on October 14, 1985, Dept. of St. Bull., Dec. 1985, at 20, 23.

system or have any components, regardless of technology, which are sea-based, air-based, land-based or space-based.

D. Problem Areas of the ABM Treaty Requiring Interpretation

Unfortunately, analysis of the legality of the Reagan Administration's SDI is of little assistance in determining the legality of current programs. Nevertheless, the interpretation debate highlighted the problem with the ABM Treaty. It could be argued that the earlier attempts at interpretation were not essentially a question of interpretation because the Treaty is clear. However, the drafting of the Treaty does leave a great deal of room for interpretation. The negotiations leading to the ABM Treaty took many years and, obviously, countless compromises occurred. That explains certain generalities in the text which also is the crux of the problem.²¹³ The numerous undefined terms in the Treaty allow the United States, as well as Russia, to develop a whole host of ballistic missile capabilities which, one can argue, are Treaty compliant.

²¹³ "Finally, supporters of finely detailed treaties argued that the Soviet Union and other rogue States were consistently willing to violate arms control accords and, more subtly, to exploit them by seizing upon every possible vagary or imprecision. . . A special argument in this respect was the allegation that Soviet negotiators were adept at drafting vague "agreement in principle" that sounded fine, but did not include the operation details necessary to make them truly effective." Kopolow, When is an Amendment not an Amendment?: Modification of Arms Control Agreements without the Senate, 59 U. Chic. L. Rev. 999, 981-1072 (1992).

In reviewing new defensive systems a discussion of some of the areas of uncertainty is necessary. The uncertainty begins with the terms used in Article I. For example this Article stipulates that neither party shall provide a "base" for an ABM system, but nowhere defines what would constitute a "base." It also states that a party will not deploy ABM systems for defense of an individual region except as provided for in Article III. What is left unclear is how large an area is an individual region. The limits in Article III deal with deployment locations and the number of missiles, launchers and radars, but the Article is silent on how much territory can be protected. For that matter, Article I prohibits deployment of an ABM system "for a defense of the territory"--but what are the boundaries of that territory?

Article II opens the door to one of the largest areas for future weapons system development. It states that the purpose of the Treaty is to limit systems designed to counter "strategic" ballistic missiles. Nowhere in the Treaty is the critical term "strategic" defined. Absent this definition the question arises as to when a tactical ballistic missile defense system becomes a strategic ballistic missile defense system.²¹⁴ The Article then goes on to provide that an ABM missile is one deployed for an ABM

²¹⁴ "The ABM Treaty, as stated in Article II, concerns 'systems to counter strategic ballistic missile'; systems to counter tactical ballistic missiles are not limited by the treaty, except in one respect." Garthoff, supra note 201, at 92.

role or of a type tested in an ABM mode. But without a definition of "strategic" the parameters of ABM role or mode cannot be determined with any degree of certainty. This Article repeats this problem when defining an ABM radar. The only available definitions of "tested in an ABM mode" are provided in Unilateral Statement B and in the 1978 Agreed Statement. According to the Unilateral Statement made by the U.S. a launcher, missile, or radar, would be considered tested in an ABM mode if,

for example, any of the following events occur: (1) a launcher is used to launch an ABM interceptor missile, (2) an interceptor missile is flight tested against a target vehicle which has a flight trajectory with characteristics of a strategic ballistic missile flight trajectory, or is flight tested in conjunction with the test of an ABM interceptor missile or an ABM radar at the same test range, or is flight tested to an altitude inconsistent with interception of targets against which air defenses are deployed²¹⁵

The problem with this Statement is that the terms that are underlined are nowhere defined.

The all-important phrase "tested in an ABM mode" is not significantly clarified in the 1978 Agreed Statement. That part of the Statement addressing "tested in an ABM mode" is broken down into eight sections. The first merely restates the U.S. position found in the 1972 Unilateral Statement. When using the term "tested" the U.S. meant testing that

²¹⁵ Unilateral Statement B (emphasis added).

occurred after the ABM Treaty was signed and not for any systems tested before the Treaty was signed. The second section defines testing in an ABM mode as testing conducted at the test ranges or the one ABM deployment location. In the third section the parties have included "ballistic target-missiles which have the flight trajectory of a strategic ballistic missile" in the definition of the term "strategic ballistic missiles or their elements in flight trajectory." Section four defines an ABM launcher as a launcher which has launched an ABM missile, and an ABM radar as a radar which has tracked a strategic missile and guided an ABM interceptor missile towards the target. The remaining four sections deal with ABM radars. None of these eight sections is particularly helpful in determining whether new ballistic missile defense systems comply with the ABM Treaty.

Article II, paragraph 2, of the Treaty employs the term "components" for the first time. This term, used repeatedly in the Treaty, is nowhere defined. One can ask are components something that can substitute for a missile, radar or launcher or are they something with lesser capability?

Article III of the Treaty limits the number of radars allowed for the protection of the contracting party's national capital, but it does not limit the capabilities of the radar. Article V uses the term "develop"²¹⁶, but this

²¹⁶ "It should be noted that the Treaty has not provided a

too is unclear, some arguing that the prohibition includes research.²¹⁷ Article VI contains the ambiguous reference to "ABM mode"; it provides that each party agrees not to give missiles, launchers or radars capabilities to counter strategic ballistic missiles or test them in an ABM mode. One can ask when does a missile have the capability to "counter strategic ballistic missiles?" It is with these ambiguities in mind that current ballistic missile defense programs of the Department of Defense must be reviewed.

definition of the term "development nor that of "testing" and both terms have led to strongly conflicting interpretations." Goedhius, The Importance of Preserving and Strengthening the Anti-Ballistic Missile Treaty of 1972, in Centre For Research of Air & Space Law, An Arms Race in Outer Space: Could treaties Prevent It 51-68 (1985).

²¹⁷ W. Durch, The Future of the ABM Treaty 30 (1987).

CHAPTER V: NEW ABM SYSTEMS AND THE ABM TREATY

A. Rules for Interpreting Treaties

Fortunately, for an interpretive analysis of the ABM Treaty the policymakers are not without helpful guidelines. In looking at the legality of the new BMD systems it is necessary to employ the tools that the contracting states would use in interpreting their obligations under the Treaty.

According to the authoritative Restatement (Third) of Foreign Relations Law of the United States the President has primary responsibility for interpreting treaties.²¹⁸ Therefore, the question is what sources would the Executive Branch rely on to assess BMD systems for Treaty compliance. There are three major sources available to the policymakers to assist them in their analysis - the Restatement (Third) of Foreign Relations Law,²¹⁹ the Vienna Convention on the Law of Treaties,²²⁰ and U.S. case law. Not surprisingly, there are some differences between these three, with no conclusive indication as to which should be applied. The differences among the three could possibly lead to different interpretations of a treaty. This reality merely compounds

²¹⁸ Restatement (Third) of Foreign Relations Law of the United States § 326 (1987) [hereinafter cited as Restatement].

²¹⁹ Restatement, supra note 218.

²²⁰ Vienna Convention on the Law of Treaties, May 23, 1969, U.N. Doc. A/Conf. 39/27, 63 A.J.I.L 875 (1969) [hereinafter cited as Vienna Convention].

the uncertainty already created by the wording of the ABM Treaty itself. A review of these three sources should however, offer a solid legal basis for assessing the legality of these new defensive weapons systems in the context of the ABM Treaty.

The source with the greatest acceptance and prestige internationally is the Vienna Convention on the Law of Treaties. This Convention, after 20 years of work, was adopted May 23, 1969 at the United Nations Conference on the Law of Treaties by a vote of 79 to 1. It came into force following ratification by the 35th state on January 27, 1980. As is clear from its preamble, the Convention is not limited to a codification of existing customary international law, but incorporates also a number of new norms. However, as more and more states and courts use the Convention as authority for those areas of "progressive development" the latter are emerging as new customary international law. The rules governing interpretation of treaties was one of the sections of the Treaty adopted without a dissenting vote, indicating to some authors that this section was merely a codification of existing customary rules of international law.²²¹

The Vienna Convention was signed by the United States but as of today has not been ratified. While the United States has not ratified the Vienna Convention, the State

²²¹ Jiménez De Aréchaga, International Law in the Past Third of a Century, 159 Hague Recueil des Cours 9, 42 (1978).

Department in a 1971 Letter of Submittal to the President on the Vienna Convention declared: "[a]lthough not yet in force, the Convention is already generally recognized as the authoritative guide to current treaty law and practice."²²² Articles 31 and 32 address the issue of treaty interpretation and read as follows:

Article 31

General Rules of Interpretation

1. A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.
2. The context for the purpose of the interpretation of a treaty shall comprise, in addition to the text, including its preamble and annexes:
 - (a) any agreement relating to the treaty which was made between all the parties in connection with the conclusion of the treaty;
 - (b) any instrument which was made by one or more parties in connection with the conclusion of the treaty and accepted by the other parties as an instrument related to the treaty.
3. There shall be taken into account, together with the context:
 - (a) any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions;
 - (b) any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation;
 - (c) any relevant rules of international law applicable in the relations between the parties.
4. A special meaning shall be given to a term if it is established that the parties so intended.

²²² Dept. St. Bull., Dec. 13, 1971, at 685.

Article 32

Supplementary means of interpretation
Recourse may be had to supplementary
means of interpretation, including the
preparatory work of the treaty and the
circumstances of its conclusion, in
order to confirm the meaning resulting
from the application of article 31, or
to determine the meaning when the
interpretation according to article 31:

(a) leaves the meaning ambiguous or
obscure; or

(b) leads to a result which is
manifestly absurd or unreasonable.²²³

Another useful source is the Restatement (Third) of
Foreign Relations Law. In understanding what the
Restatement is, it is important to know what it is not. In
the foreword to the Restatement the authors caution that,

it is 'in no sense an official document
of the United States.' The American Law
Institute [the organization that writes
and publishes the Restatement] is a
private organization, not affiliated
with the United States Government or any
of its agencies. In a number of
particulars the formulations in this
Restatement are at variance with
positions that have been taken by the
United States Government.²²⁴

Nevertheless, though not a formal source of the law, the
Restatement does provide a scholarly look at what the law is
and what in the opinion of the American Law Institute it
should be. It is noteworthy that whenever any U.S. federal
court deals with an international legal problem, it

²²³ Vienna Convention, supra note 220, arts. 31, 32.

²²⁴ Restatement, supra note 218, at ix.

invariably cites and quotes the Restatement as an accurate description of what international law is in a given area.

Section 325 of the Restatement concerning treaty interpretation states:

(1) An international agreement is to be interpreted in good faith in accordance with the ordinary meaning to be given to its terms in their context and in the light of its object and purpose.

(2) Any subsequent agreement between the parties regarding the interpretation of the agreement, and subsequent practice between the parties in the application of the agreement, are to be taken into account in its interpretation.

Although this section closely follows the wording in the Vienna Convention, the Restatement takes a more expansive view of the use of *travaux préparatoires*.²²⁵ The Vienna Convention provides that the use of *travaux préparatoires* should occur only if the "ordinary meaning" is ambiguous or obscure. There are two schools of thought concerning the use of negotiating history: one claims that the text of the treaty and the *travaux préparatoires* are of equal importance since both show the real intention of the parties; the other school holds that the text should control and the *travaux préparatoires* should only be treated as a secondary source.²²⁶ It is this second textual approach which is adopted in the Vienna Convention and downplayed in the Restatement.²²⁷ The Restatement concludes that U.S. courts

²²⁵ The material comprising the negotiating history.

²²⁶ Aréchaga, supra note 219, at 43.

²²⁷ There is disagreement as to what method was being used by the International Court of Justice prior to the Vienna

are likely to give considerable weight to the negotiating history in interpreting a treaty.

Along with advocating the non-textual approach to treaty interpretation the Restatement expands on what should be considered when determining the intent of the parties. In Reporter's Note 5 the Restatement states that, "[a] court or agency of the United States is required to take into account United States materials relating to the formation of an international agreement that might not be considered by an international body such as the International Court of Justice."²²⁸ Examples given include Senate debates and committee reports. This all-inclusive review of documents related to a treaty reflects the reality that when U.S. courts are interpreting a treaty they are determining "its meaning for purposes of its application as domestic law."²²⁹

Another tool which will assist U.S. decision-makers in interpreting treaties are the opinions of the U.S. Supreme Court. As the Restatement notes, "[c]ourts in the United States have final authority to interpret an international agreement for purposes of applying it as law in the United States"²³⁰ Although a request for the interpretation of the ABM Treaty by the Supreme Court is quite unlikely,

Convention. "The jurisprudence of the International Court support the textual approach. . . ." Brownlie, supra note 184, at 627. "The Convention's inhospitality to travaux is not wholly consistent with the attitude of the International Court of Justice. . . ." Restatement, supra note 218, § 325, comment e.

²²⁸ Restatement, supra note 218, § 325.

²²⁹ Restatement, supra note 218, § 325, Reporters Note 4.

²³⁰ Id. § 326.

nevertheless, a study of its method of interpreting international agreements cannot but be instructive.

The U.S. Supreme Court has followed a number of rules in interpreting treaties and determining the intent of the parties. In United States v. Stuart, the Court stated that, "[t]he clear import of treaty language controls unless 'application of the words of the treaty according to their obvious meaning effects a result inconsistent with the intent or expectations of its signatories.'"²³¹ Clearly, the majority in this case used the non-textual method favored by the Restatement.

On the same occasion, the Court urged that reference be made to, "[n]ontextual sources that often assist us in 'giving effect to the intent of the Treaty parties,' . . . such as a treaty's ratification history and its subsequent operation. . . ."²³² Interestingly, the Court stated in a footnote that

[a] treaty's negotiating history, which JUSTICE SCALIA suggests would be a better interpretive guide than preratification Senate materials, . . . would in fact be a worse indicator of a treaty's meaning, for that history is rarely a matter of public record available to the Senate when it decides to grant or withhold its consent.²³³

Thus, it appears that a great variety of sources will be used by a U.S. court to determine the intent of the parties

²³¹ 489 U.S. 353, 365-66 (1988) (quoting from Sumitomo Shoji America, Inc. v. Avagliano 457 U.S. 176, 180 (1982)).

²³² Id. at 367.

²³³ Id. at 368 n. 7.

to a treaty.²³⁴

Lastly, the Supreme Court has accepted the doctrine that the practice of the signatories to a treaty is evidence of its proper interpretation because their conduct demonstrates their understanding of the agreement.²³⁵

Combining all these sources for treaty interpretation a reviewer of U.S. BMD systems for compliance with the ABM Treaty should look first to the text of the Treaty, giving due consideration to its purpose and intent. To assist in understanding either the text, or the purpose and intent, the reviewer should look at the past practice of the

²³⁴ The Supreme Court's history with treaty interpretation cases indicates their unease with some tools of construction. Justice Brennan in dissent in Sale v. Haitian Centers Council 125 L.Ed. 2d 128 (1993) downplays the importance of material outside the terms of the treaty when he states, "it is axiomatic that a treaty's plain language must control absent 'extraordinarily strong contrary evidence.'" Id. at 159 (quoting from Sumitomo, supra note 231). He cites the Vienna convention when he argues, "[r]eliance on a treaty's negotiating history (travaux preparatoires) is a disfavored alternative of last resort, appropriate only where the terms of the document are obscure or lead to 'manifestly absurd or unreasonable' results. Id. In a case involving the shoot-down of KAL Flight 007 the Court in applying a multi-lateral aviation convention stated, "[t]hese estimations of what the drafters might have had in mind are of course speculation, but they suffice to establish that the result the test produces is not necessarily absurd, and hence cannot be dismissed as an obvious drafting error. We must thus be governed by the text--solemnly adopted by the governments of many separate nations--whatever conclusions might be drawn from the intricate drafting history that petitioners and Solicitor General have brought to our attention. The latter may of course be consulted to elucidate a text that is ambiguous, . . . But where the text is clear, as it is here, we have no power to insert an amendment. Chan v. Korean Air Lines, LTD, 490 U.S. 122, (1989).

²³⁵ Stuart, supra note 231, at 353.

parties, and the Treaty's negotiating and ratification history.

B. Theater Ballistic Missile Defense Systems and the ABM Treaty

In reviewing the new generation of ABM systems for compliance with the ABM Treaty, the analysis is aided if two factors are kept in mind: the capability of the weapon system and its deployment location. As to capability, it is perhaps helpful to visualize the current systems being developed by the Department of Defense as representing a continuum of capability, from weapon systems being able to intercept slow missiles, in close proximity to the deployed system, protecting a small geographic area, to systems being able to intercept strategic missiles, at great ranges, and protecting a large geographic area. The question becomes where, if ever, on this continuum do the BMD systems run afoul of the limits contained in ABM Treaty.

1. PAC-2 and Hawk Systems

Perhaps the easiest systems to assess are the upgraded surface to air missiles which have been converted to ballistic missile defense - the PAC-2, and TPS-59 radar and Hawk weapon system. The purpose of these systems is to provide defense against tactical ballistic missiles. It can

therefore be argued that since these systems are intended merely to defend against tactical ballistic missiles, that by definition, they do not fall within the parameters of the ABM Treaty.²³⁶ However, when it was initially suggested to convert the Patriot from intercepting aircraft to intercepting ballistic missile, some claimed that this would violate the ABM Treaty.

The presumption against missile defense inspired by the ABM Treaty is so strong that even the upgrade necessary to give Patriot an anti-tactical [ballistic] missile (ATBM) capability was nearly killed several times during the 1980s. Prominent former officials, primarily those who had negotiated the ABM Treaty, declared that an up-graded Patriot would violate or threaten to destroy the Treaty. For example, in 1985 John Rhinelander, legal advisor to the SALT I delegation that negotiated the ABM Treaty, stated in reference to up-graded Patriot: Systems with an ATBM [anti-tactical ballistic missiles defense] capability might also be effective against SLBMs, which fly at a similar speed, flight trajectory, and reentry angle to MRBMs and IRBMs. Since SLBMs are included as strategic ballistic missiles in the SALT I and SALT II agreements on offensive weapons, deployment of ATBMs with such a capability would be inconsistent with Article VI(a) of the ABM Treaty.²³⁷

²³⁶ "Article II defines an ABM system as one 'to counter strategic ballistic missiles or their elements in flight.' Therefore, the Treaty would not cover an anti-tactical ballistic missile system." Waller, Bruce & Cook, supra note 203, at 77.

²³⁷ Payne, supra note 15, at 90 (Footnotes in original omitted). This concern had already surfaced during the ratification process of the ABM Treaty when there was considerable concern about the Soviet Union's SAM capabilities and whether this wouldn't indirectly provide a limited strategic ballistic missile defense. See J. Voas,

This illustrates the major problem with the ABM Treaty, its lack of a clear definition separating a system that is allowed for tactical missile defense and one for strategic defense.

As the text provides no help in understanding the phrase "counter strategic ballistic missiles", recourse to the object and purpose of the treaty is appropriate: specifically, what systems the parties intended to prohibit. The available negotiating history is of no help. No attempt can be detected on the part of the parties to draw a clear line between strategic and tactical BMD systems. Yet, both parties were knowledgeable about the possibility of SAM upgrades. As one observer notes, "[i]n 1972 the United States wanted to preserve the option to deploy its SAM-D (now Patriot) systems. It also feared that the Soviets might give their widely deployed, antiaircraft SAM forces an ABM capability, putting the United States at a strategic disadvantage and enabling the Soviet Union to break out from the Treaty."²³⁸ The fact that both parties were aware of the

Soviet Attitudes Towards Ballistic Missile Defense and the ABM Treaty 30-31 (1990). Some commentators when arguing against tactical BMD systems often make reference to the SLBM issue stated in the cited quote. The continuing viability of this argument grows suspect. The Interim Agreement terminated in 1977 and SALT II was never ratified. There is no persuasive evidence that the parties intended the technical parameters of SLBMs to provide a capability demarcation between tactical BMD systems and strategic BMD systems.

²³⁸ Rhinelanders & Goodman, The Legal Environment, in Chayes & Doty, supra note 32, at 61. Dr. John S. Foster, Jr., the Defence Director of Research and Engineering, during ratification hearings before the Senate was asked, "[t]he upgrading of SAM's had been of concern in the past, but it

problem, and failed to negotiate an "understanding" on the issue, suggests they elected to allow development of tactical BMD systems to proceed.²³⁹

With respect to these modified systems, the events of the Gulf War is of great significance. The U.S. used the Patriot system in an attempt to counter Iraq's Scud missiles and there was no condemnation of the practice by the Soviet Union.²⁴⁰ On the contrary, when a Soviet spokesman Vitaliy Churkin was asked about the use of the Patriot missiles in the Gulf, he did not show any concerns regarding the ABM Treaty and replied that, "each country has the right to take all defense measures it finds necessary."²⁴¹ As neither

is still relevant and important in the future. The reason for this is, as you well know, that surface-to-air missiles are not numerically limited by the strategic arms limitation treaty. There are some 10,000 surface-to-air missiles deployed in the Soviet Union. I believe the Soviets will continue not to permit these air defense forces of surface-to-air missiles to degrade. So we continue to be concerned about this gray area of surface-to-air missiles and their capability for ballistic missile defense. . . . You have not lessened or increased your apprehension about the Tallin systems being upgraded for ABM capabilities by the provisions of the treaty?" Dr. Foster replied, "[n]o, sir; I do not feel any less concerned." Military Implications of the Treaty on the Limitations of Strategic Offensive Arms: Hearings before the Committee on Armed Services of the Senate, 92nd Cong., 2d Sess. 255-56 (1972) [hereinafter cited Military Implications Hearings].

²³⁹ Dr. Foster was asked "[w]as the SAM-D system specifically discussed in our negotiations with the Soviets?" He replied, "not to my knowledge." Military Implications Hearings, supra note 238, at 257.

²⁴⁰ "In principle, only the parties to a treaty can, by common consent, give an authentic interpretation of the treaty" United Nations Institute for Disarmament Research, Disarmament: Problems Related to Outer Space, 138 (1987).

²⁴¹ Payne, supra note 15, at 90. (Footnote in original omitted).

party to the agreement considers these systems a breach of the Treaty, then under 31(3)(b) of the Vienna Convention and Section 325 (2) of the Restatement, these systems can be regarded as not covered by the terms of the ABM Treaty. Since these systems have extremely limited capabilities, they could not provide the U.S. with an ability to break out from the constraints of the ABM Treaty. The PAC-2 and Hawk systems are effective only against tactical ballistic missiles.²⁴² In sum, as this type of defense is not prohibited by the ABM Treaty, these systems should be considered Treaty compliant.

2. PAC-3 and Sea-Based Area Theater Ballistic Missile Defense Systems

The other two systems being developed by the Department of Defense are the PAC-3 and Sea-Based Area Theater Ballistic Missile Defense, designed to provide improved theater missile defense over the PAC-2 and Hawk system. The PAC-3 and Sea-Based Area Theater Missile Defense will have comparable capabilities in different threat areas. The stated intention of the Pentagon is that these system should be solely for theater missile defense against tactical ballistic missiles. However, the concern has been voiced that these systems might provide the U.S. with a dual

²⁴² Some would argue they cannot even perform this function. See Hersch, supra note 29.

capability, that is, both the ability to intercept tactical as well as strategic missiles. Clearly, Article V of the ABM Treaty prohibits the development of mobile or sea-based strategic ballistic missile defenses. If they were not prohibited, either party could deploy these systems to provide a territorial defense. The stated intention for these systems is tactical defense, not strategic defense, but should the stated intention of one party be sufficient to demonstrate compliance with the Treaty? Obviously not.²⁴³ There must be some objective standard whereby both parties are satisfied as to the systems compliance with the Treaty. This is not provided for in the Treaty.

With no textual definition of "strategic", or any clearly articulated intent of the parties to limit tactical BMD systems, the question arises whether these "non-ABM mode" systems are Treaty compliant unless tested in an ABM-mode? It can be argued that whether a system was actually "tested" in a particular mode is the demarcation line between permitted and prohibited systems. This criterion appears consistent with the testimony of Dr. John S. Foster, then Director of Defence Research and Engineering, given during U.S. Senate ABM Treaty ratification hearings. Dr. Foster consistently testified that only if the SAM-D (Patriot) missile was tested against strategic ballistic missiles would it be a violation of the

²⁴³ However, it should be given some weight. See generally Brownlie, supra note 184, at 629, 638.

Treaty.²⁴⁴

New BMD systems are designed to protect a larger geographical area (footprint) than current systems, but their capabilities are still fairly limited. It seems safe to conclude that as long as these systems are not tested against strategic ballistic missiles, they are in compliance with the ABM Treaty.

3. THAAD System

The system currently under development which is causing the greatest debate as to its compliance with the ABM Treaty

²⁴⁴ The following colloquy occurred between Senator Symington and Dr. Foster. "Senator Symington. I would ask some questions regarding the capability of the Army SAM-D program with the ABM portion of the recent SALT agreements. These question come up because several witnesses have told this committee in the past that SAM-D will have a capability against tactical ballistics (sic) missiles and because you yourself indicated, . . . that SAM-D will also have a limited capability against strategic ballistic missiles. Would you please confirm for the record today that SAM-D will in fact have such capabilities? Dr. Foster. SAM-D will not have an ABM capability. . . . The ABM Treaty, prohibits the testing of SAM-D against strategic ballistic missiles. SAM-D will not be tested against strategic ballistic missiles. Senator Symington. . . . In light of the fact that SAM-D will have a limited capability against strategic ballistic missiles, is not a mobile land-based ABM system prohibited by the treaty? Dr. Foster. SAM-D is not a mobile land-based ABM system. An example of what would make it a mobile land-based ABM system would be a program by the Army to develop a capability and then test SAM-D against strategic ballistic missiles. Senator Symington. Does this not mean that if we built SAM-D and tested it against any ballistic missile, tactical or strategic, we would be in violation of Article 6? Dr. Foster. No, sir. Only if we tested SAM-D against strategic ballistic missiles, and deployed it as a SAM." Military Implications Hearings, supra note 238, at 257-59.

is THAAD. On the continuum of capabilities, this system is planned to provide the greatest umbrella of protection in the area of theater missile defense. A number of observers have argued that if THAAD were developed and tested it would "breach the A.B.M. Treaty simply because it would be capable of destroying both long-range and short-range ballistic missiles."²⁴⁵ The counter argument being put forward by the U.S. Administration and the Defense Department is that THAAD is merely a limited coverage, theater ballistic missile defense system.²⁴⁶ Once again, we are confronted with a party to the Treaty stating that its BMD system is only intended to be a defense against tactical missiles.²⁴⁷ The only test of this intention is action. If THAAD is not tested against strategic ballistic missiles, then there is no objective standard to declare that THAAD has "capabilities to counter strategic ballistic missiles or their elements in flight trajectory."²⁴⁸

The fact that there is no current evidence that THAAD runs afoul of the Treaty by providing effective defense

²⁴⁵ See Hersh, supra note 29, at 87. "If THAAD is capable of countering current and future theater ballistic missiles, it would also have a significant capability against strategic missiles, and would thus violate the treaty and vitiate the accord's contributions to U.S. security." Pike & Marcus, Taking Aim at the ABM Treaty: THAAD and U.S. Security, Arms Control Today, May 1995, at 3.

²⁴⁶ Id.

²⁴⁷ A problem the current administration has is how much deference will be given to their stated intentions, based on their previous example of taking two contradictory positions on whether THAAD complies with the Treaty or not. See note _ and accompanying text.

²⁴⁸ ABM Treaty, supra note 2, Art. VI.

against strategic ballistic missiles, does not end the inquiry. Another relevant prohibition in the Treaty prescribes that neither party will provide a "base" for a defense of the territory of the country. What constitutes a "base" is not defined in the treaty. It is often stated that the intent of the parties to the ABM Treaty was to "ensure that neither side could develop a quickly deployable nationwide defense and rapidly 'break out' of the treaty."²⁴⁹ The question arises whether a system which was originally neither designed, tested, nor given capabilities against strategic ballistic missile provides such a "base"? To control the development of a "base" the Treaty bans development of mobile land-based strategic ballistic missile defense systems. Without a clear definition of "strategic" the analysis runs in a circle, with no obvious method of resolution. Based on the wording of the ABM Treaty, there is no sufficiently clear prohibition against developing THAAD.

Yet the analysis cannot stop at the Treaty. The Administration must confront what has been called the "Foster Box". "The 'Foster Box' is a particular set of missile characteristics used by . . . [Dr.] John S. Foster, Jr., to define ICBMs in ABM testing. The values were mentioned by Dr. Foster in congressional testimony in 1969 and have been generally applied since."²⁵⁰ Though the

²⁴⁹ Mendelsohn & Rhinelanders, supra note 101, at 8.

²⁵⁰ T. Johnson, Ground-Based ABM Systems, in Chayes & Doty supra note 32, at 111.

"Foster Box" was originally developed prior to the debate on ratification of the ABM Treaty, it became part through testimony at the hearings. The "Foster Box" provides, that at the time of the ABM Treaty debate, the flight characteristic of a strategic ballistic missile would be one with a minimum velocity of two kilometers a second or a minimum altitude of 40 kilometers. "Currently, Pentagon guidelines require a review for Treaty compliance of any planned test of theater ballistic missile interceptors against targets traveling more than 2 kilometers per second . . . and at altitudes over 40 kilometers."²⁵¹ THAAD is outside the limits of the "Foster Box" as it is designed to intercept ballistic missiles of ranges up to 3,500 kilometers and traveling at speeds up to 5 kilometers per second.²⁵² Strategic ballistic missiles, on the other hand, have ranges up to 10,000 kilometers and travel at speeds around 7 kilometers per second.

This limitation based on the "Foster Box" is solely between the U.S. Senate and the Executive. The Soviets did not consider it a Treaty requirement when they tested their SA-12 system during the 1980's. The SA-12 air defense missile was tested against the Soviet SS-12 theater ballistic missile which has a range of 925 kilometers and an

²⁵¹ Graybeal & Krepon, It's not son of Star Wars, The Bulletin of the Atomic Scientists, Mar. 1994, 17. It is important to keep in mind that these are self-imposed limitations and are not mandated by the ABM Treaty itself.

²⁵² See Krepon, supra note 28, at 21; Hersh, supra note 29, at 96.

approximate speed of 2.7 kilometers.²⁵³ Though the U.S. was concerned with the SA-12 system, it never charged the Soviets with violating the ABM Treaty.²⁵⁴ This practice indicates that the "Foster Box" was never, even on an informal basis, part of the ABM Treaty.

What the present Administration is confronted with is not unlike what the Reagan Administration faced during the "Great Interpretation Debate". The option for both the President and the Congress are the same. The President has the authority to interpret the Treaty and the Congress has the ability to cancel funding for THAAD, just as it did for SDI.²⁵⁵

There is no better example of the drafting weakness of the ABM Treaty than provided by the THAAD debate. "[C]urrent agreements do not allow clear performance-based distinctions to be drawn between strategic and nonstrategic ballistic missiles for purpose of the ABM Treaty."²⁵⁶ Absent evidence to the contrary, there is no indication that THAAD will be able to yield more capability than what it is being designed for, and therefore it will not be in violation of the ABM Treaty.

²⁵³ Mendelsohn & Rhinelanders, supra note 101, at 9.

²⁵⁴ Id.

²⁵⁵ See Koh, The President Versus the Senate in Treaty Interpretation: What's All the Fuss About?, 15 Yale J. Int'l L. 331 (1990). But see The ABM Treaty Interpretation Resolution, Report of the Committee on Foreign Relations United States Senate S.Rep. No. 164, 100th Cong., 1st Sess. 49 (1987) (testimony of L. Henkin).

²⁵⁶ Lin, supra note 100, at 16.

B. National Missile Defense and the ABM Treaty

A system which pushes even further the limitations of the ABM Treaty is the National Missile Defense system. This system is planned to provide a "defense of the U.S. homeland"²⁵⁷ The name of the system alone suggests that it will have serious compliance problems with the ABM Treaty. The provisions in the ABM Treaty which create problems for a national missile defense are numerous. Article I of the Treaty limits three items: (1) the development of a defense of the territory of a country, (2) the development of a defense of an individual region except as provided in Article III, and (3) the development of a "base" for the defense of the territory. Article III of the Treaty, along with the 1974 Protocol, allows for a ground-based fixed missile defense system, comprising no more than 100 interceptors. Some proponents of the national defense system argue that the system should be deployed at Grand Forks, North Dakota, the one authorized U.S. location, and from there, with the limitations of 100 interceptors, attempts to protect the entire continental United States.²⁵⁸

²⁵⁷ BMDO Report, supra note 27.

²⁵⁸ Daalder, supra note 32, at 35. The general consensus of opinion at this point is that this is not technically feasible. Johnson, Ground-Based ABM Systems, in Chayes & Doty supra note 32, at 117-18.

Each of the limitations contained in Article I of the Treaty must be addressed to review this proposal.

First, the Treaty prohibits deploying a system for the "defense of the territory of its country." Does the Treaty by the term "defense" mean a complete defense from an all out nuclear attack from the other party to the Treaty (thick defense) or does defense mean any type of defense no matter how small (thin defense)? The current plans for the national missile defense system do not identify the number of missiles it is meant to intercept, but it appears to be a scaled down version of GPALS.²⁵⁹ The justification for the system is to provide protection from "rogue" third-world countries. Correspondingly, the system will be designed to intercept a small number of missiles and not a full scale nuclear assault from the former Soviet Union. The purpose of the ABM Treaty was to insure that both sides to the agreement remain vulnerable to a nuclear retaliatory attack, institutionalizing the doctrine of "mutually assured destruction". By not allowing a national missile defense the parties could ensure that neither country would dare launch a first strike and expect to stop a devastating retaliatory attack from what was left of the attacked country's nuclear arsenal. Allowing for a limited ballistic missile defense was to ensure that if a contracting party was attacked it would still be able to protect some

²⁵⁹ GPALS was sized to provide protection against up to 200 reentry vehicles. BMDO Report, supra note 27, at 1-5.

resources to allow for a counter attack. Article 31 of the Vienna Convention requires that the terms of the Treaty be interpreted in light of the "object and purpose" of the Treaty. The object and purpose of the ABM Treaty is to ensure that neither party will build a defence which can neutralize portions of a major nuclear assault from the other party. The NMD system's capabilities will be less than that. Since the term "territory of its country" is not defined, and as this system is planned to leave parts of the U.S. vulnerable to attack (Hawaii and Alaska), it can be argued that it is not a system designed for the defense of the entire United States. However, a system to provide an umbrella over the entire continental U.S. cannot technically be done from one site.²⁶⁰ If the purpose of the program is to create a defensive umbrella covering most of the continental U.S., more than one site will be required and this would clearly be a violation of the ABM Treaty.

Though the NMD system as currently defined may not violate the Treaty's provisions against territorial defense, a question arises whether the second phrase of paragraph 2 of Article I prohibits this system. The phrase stipulates that each party is "not to deploy ABM systems for a defense of an individual region except as provided for in Article III of this Treaty." Since the term "individual region" is not defined, one wonders how large a territory can an individual region cover. It can be argued that the

²⁶⁰ See supra note 87 and accompanying text.

limitations on the permitted deployment of the two systems under Article III limits the area. By limiting the size of the radar protecting the ICBM silo location, and prescribing that the two systems must not be within 1,300 kilometers, in accordance with Common Understanding A, one might conclude that when two systems were authorized that they could not provide a wide area of protection. But once again, instead of clearly stating the reasons for inclusion of certain terms, the Treaty is subject to different interpretations. It could just as easily be argued that the purpose of the limitations on the size of radar and number of interceptors (not their range)²⁶¹ was to insure that the permissible ABM system could only offer a limited defensive capability. Since the size of the current program only allows for limited protection, it could be considered compatible with the terms of the Treaty.²⁶²

Nevertheless, the deployment of a NMD system would create serious legal problems. Even if the system was not

²⁶¹ "Robert Bell, a staff member of the Senate Armed Services Committee, has maintained 'that when the ABM Treaty was negotiated the two sides deliberately and expressly rejected the idea of putting a range limitation on the interceptors that could be deployed legally under the treaty.' Other American negotiators of the ABM Treaty similarly recall that the US considered but then rejected explicit interceptor range limitations." Daalder, supra note 32, at 35.

²⁶² "Deployment of 100 interceptors at Grand Forks which were capable of defending the continental United States would therefore not violate the ABM Treaty's prohibition against deploying an ABM defense of national territory." Id. The more persuasive argument is that the purpose and intent of the Treaty was to allow each side to provide a "thick" (100 ICBM) defence of two limited areas.

intended to violate the Treaty's provisions concerning the protection of the national territory, or of a region, it could provide a base for such a defense. This would be a violation of Article I. As previously noted the phrase "base for such a defense" was not defined in the Treaty, but looking at its object and purpose it becomes clear that the parties did not want one side to be able to develop systems which would rapidly allow for a complete defense of the territory. If such a capability was allowed, then the objecting party would be at a considerable disadvantage until it was able to build a comparable defense. Allowing a capability to breakout from the restrictions of the Treaty would have made the Treaty of limited value and of limited duration.²⁶³ Developing a system based on 100 interceptors which is designed to protect a significant portion of the continental U.S. would almost certainly be in violation of the Treaty. Therefore, the U.S. could not lawfully deploy a NMD system.²⁶⁴

If the NMD system cannot be deployed what then is allowed under the Treaty? Either party, in accordance with articles I, IV, VII, and applying the narrow interpretation of Article V, may conduct research, develop, and test fixed ground-based systems. Therefore, the United States is permitted to conduct development and testing, and not merely

²⁶³ The Treaty was for an unlimited duration. See ABM Treaty, supra note 2, Art. XV.

²⁶⁴ Current plans as discussed in Chapter II only provide for research efforts.

research (as currently planned) for the ground based segments of the NMD.

As noted in Chapter II, current designs of the NMD will include a space-based missile and tracking system. According to Article V of the Treaty both parties agree not to develop, test or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based. The question arises is there something allowed prior to "develop" (i.e. research) for these types of systems? The U.S. position was originally explained by Gerard Smith during the ratification process before the Senate Armed Services Committee.

The prohibitions on development contained in the ABM Treaty would start at that part of the development process where field testing is initiated on either a prototype or a breadboard model. It was understood by both sides that the prohibition on 'development' applies to activities involved after a component moves from the laboratory development and testing stage to the field testing stage, wherever performed. The fact that early stages of the development process, such as laboratory testing, would pose problems for verification by national technical means is an important consideration in reaching this definition.²⁶⁵

Once again, however, here is a term without a definition and the text without a clear directive regarding the point that distinguishes between research and development.²⁶⁶

²⁶⁵ Military Implication Hearings, supra note 238, at 377.
²⁶⁶ Durch, supra note 217, at 30.

Even defining the limitations of Article V does not resolve the question concerning the efforts which are permissible in the Department of Defense NMD program. One question relates to the space-based segment as a "component" as provided for in the Treaty. "Component" is a vital term which is not defined in the Treaty. The limitations in Article V (not to develop, test or deploy) are aimed only at space-based systems and "components." Thus, if the space segment of the NMD is not a "component," then the only limits on it are that it cannot become part of a deployed NMD system.²⁶⁷ A member of the negotiating team recalls that, "[d]uring the negotiations, both sides agreed that certain auxiliary equipment, described as 'adjuncts' to an ABM component, were not limited by the Treaty. The one example given by the United States during the negotiations was an optical telescope used in conjunction with an ABM radar. An 'adjunct' was understood to be a device that supplements, but does not substitute for, an ABM component."²⁶⁸ It has also been stated that the phrase "capable of substituting for ABM interceptor missiles, ABM launchers, or ABM radars" was specifically incorporated in Agreed Statement D to allow for adjuncts to support components, such as laser adjuncts as part of a component for missile guidance. If the space-based segment is merely passing information to the ground-based ABM radar, it would

²⁶⁷ See supra note 257-68 and accompanying text.

²⁶⁸ Rhinelanders & Goodman, The Legal Environment, in Chayes & Doty, supra note 32, at 46.

appear to be an adjunct and in compliance with the Treaty limitations on a space-based "component". However, if the space-based segment is able to communicate with the interceptor to assist in the intercept, it begins to take on the characteristics of an ABM radar and would therefore not be allowed past the research stage. The current Department of Defense program calls for the space segment to merely provide data to the battle management command, control and communication segment which provides range extending information to the NMD ground based radar. The space segment would therefore appear to fall short of being a "component" and correspondingly would not be limited by the prohibitions in Article V. Though this system is currently only planned for research, the United States could conduct its development and testing of this space segment and still remain within the ABM Treaty limitations.

D. Research Programs and the ABM Treaty

Though these systems may potentially have the greatest capability, at this time their compliance with the ABM Treaty presents no problem. As only research on these systems is currently planned, they are not subject to the limitations imposed by the Treaty. The U.S. has always held the position that there is no prohibition against basic research--the extent of the current plans for these

technologies. This is contrary to the position the Soviets have taken.

The Russian language version of Article V uses somewhat more restrictive wording than the English version. In the Russian, the sides agree 'not to create' (ne sozdavat) the types of systems or components prohibited by Article V, a broader usage than what the United States meant by 'develop'. This helps to explain Soviet insistence, starting in 1985, that the ABM Treaty bans even basic research into such things as space-based ABM components.²⁶⁹

Notwithstanding this position, the Soviets were reportedly actively engaged in laser research for BMD applications.²⁷⁰ It is worth noting that this has not always been the position taken by the Soviets. Marshal Grechko, then Minister of Defense, speaking at a session of the Supreme Soviet, while endorsing the ABM Treaty stated: "[a]t the same time, it [the Treaty] does not place any limits on carrying research and experimental work directed toward solving the problems of defense of the country against nuclear/missile attack."²⁷¹ Allowing basic research is consistent with the recognition of the limitations of NTM as the Treaty means of ensuring compliance with the terms of the Treaty. Basic research in the laboratory could not be monitored by NTM.

If work on these systems ever progresses from research to development, then these systems will not comply with

²⁶⁹ Dorch, supra note 217, at 30.

²⁷⁰ Voas, supra note 237, at 50-51.

²⁷¹ Wolfe, The SALT Experience 21 (1979).

current Treaty limitations. Space-based lasers or space-based kinetic energy interceptors are prohibited by the restriction in Article V not to develop, test, or deploy ABM systems which are space-based.

CHAPTER VI: FLEXIBLE INTERPRETATION, MODIFICATION OR
TERMINATION OF THE ABM TREATY

A. Role of the Standing Consultative Commission

The ABM Treaty employs three unique ways to facilitate compliance with the Treaty. First, the Treaty formally adopted "national technical means" as an internationally permissible method to monitor the activities of the other party. The Treaty in Article XII prohibited intentional concealment methods to hamper this surveillance by NTM (i.e., satellites). The most critical to future efforts to interpret or modify the ABM Treaty, is the Standing Consultative Commission, established by Article XIII.²⁷² The SCC was not conceived as an organ solely concerned with the ABM Treaty; its area of responsibility included the SALT I Interim Agreement²⁷³ and the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics of September 30, 1971.²⁷⁴

²⁷² Obviously, this is not the only avenue available for these changes. For example, the Reagan Administration's broad interpretation was a unilateral act, not negotiated in the SCC.

²⁷³ See Interim Agreement, supra note 170.

²⁷⁴ 22 U.S.T. 1590, T.I.A.S. 7186.

The responsibilities of the SCC under Article XIII of the Treaty, cover a number of areas. A duty the Commission has already performed involved developing procedures for the dismantling of existing ABM systems not allowed by the Treaty. The verification of compliance would only come into play if a future agreement limited the number of ABM sites in each country to zero. At this time the Galosh system around Moscow is still operational whereas the ABM site in Grand Forks, North Dakota, though non-operational, is not dismantled. Under the Treaty the SCC is the forum for exchanging information relevant to resolving compliance ambiguities.²⁷⁵ To ensure the viability of using "national technical means", the SCC's duties include resolving problems caused by unintentional interference with satellite surveillance.²⁷⁶ Another function of the SCC is to consider proposals on further limitations of strategic arms as well as reviewing "possible changes in the strategic situation which have a bearing on the provisions of the treaty."²⁷⁷ In addition, the Treaty provides that the SCC will, "consider, as appropriate, possible proposals for further increasing the viability of this treaty; including proposals for

²⁷⁵ Though the Commission is tasked to consider compliance issues it is not a judicial body and cannot adjudicate disputes or compel compliance.

²⁷⁶ This obligation was raised in the SCC by the Soviets when the U.S. placed shelters over its ICBM silos. The U.S. argued that the shelters were for environmental protection. If they were erected to intentionally conceal the silos this would have been a violation of Article XII and a breach of the Treaty. Calvo, supra note 170, at 313-14.

²⁷⁷ ABM Treaty, supra note 2, Art. XIII 1.(d).

amendments in accordance with the provision of this treaty."²⁷⁸

Prior to the conclusion of SALT I the two parties had not agreed "on matters such as the charter and regulations of the Commission, its site, its make-up, and its relation to SALT II."²⁷⁹ A Memorandum of Understanding (MOU) was signed on 21 December 1972, at the end of the first session of SALT II.²⁸⁰ The MOU provided that the SCC should hold periodic sessions as needed, but no less than twice a year.²⁸¹ By June 1973 the SCC established procedural regulations as directed in the MOU.²⁸² These regulations call for the proceedings to be kept private unless both commissioners agree to make them public.²⁸³

The majority of the SCC's efforts to date have been directed toward resolving agreements on the implementation of different provisions of the ABM Treaty and toward resolving compliance issues. The recently declassified

²⁷⁸ Id. Art. XIII 1.(f). The future importance of this function was identified early. "This function could become increasingly important as, inevitable, interpretative issues arise out of ambiguities in the present texts. Rhineland, The SALT I Agreements, in Willrich and Rhineland, supra note 154, at 154.

²⁷⁹ Id. at 153.

²⁸⁰ Id. Memorandum of Understanding Between the Government of the United States of America and the Government of the Union of Soviet Socialist Republics Regarding the Establishment of a Standing Consultative Commission, Dec. 21, 1972, 24 U.S.T. 238, T.I.A.S. 7545 [hereinafter cited as MOU].

²⁸¹ MOU, supra note 280, Art. IV

²⁸² Id. Art. V.

²⁸³ Standing Consultative Commission on Arms Limitation: Regulations, 30 May 1973, No. 9, 24 U.S.T. 1124, T.I.A.S. 7637.

documents are an example of the former, while the debate concerning a large Russian phased array radar, near the town of Krasnoyarsk in Siberia is an example of the latter. This radar, discovered by U.S. reconnaissance satellites in 1983, was constructed nearly 400 miles from the Soviet/Mongolian border and was pointed in a northerly direction. According to a well-informed observer,

[the radar] was as tall as a fifty-story building and nearly as large as two football fields. Each side was allowed early-warning radars to track incoming enemy warheads, but only 'at locations along the periphery of its national territory and oriented outward.' This one seemed much too far inland to qualify as permissible. Moreover, it was suspiciously close to a cluster of SS-18 and single-warhead SS-11 ICBM fields to the south, near the Mongolian border. It had the earmarks of being part of a new ABM facility, illegal under SALT I.²⁸⁴

The radar was clearly a violation of the ABM Treaty and caused serious controversy in the SCC. Eventually, the Soviets acknowledged that the facility was in fact a violation of the Treaty and dismantled the radar.²⁸⁵ Another situation which led to a compliance debate as well as to an Agreed Statement was the use of SAM radars. The U.S. was concerned about the Soviets developing a nation-wide defense by upgrading their existing SAM sites. U.S. intelligence

²⁸⁴ S. Talbott, Deadly Gambit, The Reagan Administration and the Stalemate in Nuclear Arms Control 321 (1984).

²⁸⁵ Eduard Shevardnadze made this admission in a speech to the Supreme Soviet on October 23, 1989. Daalder, supra note 32, at 141.

had recorded that SAM radars were being activated at the same time as anti-ballistic missile tests.²⁸⁶ The implication was that the Soviets were testing their SAM radar against incoming missiles. The U.S. raised this issue in the SCC and the final result was an Agreed Statement limiting the use of these radars.²⁸⁷

Given the responsibilities of the SCC and the current desire by the U.S. to field more advance ballistic missile defense systems, the role of the SCC should soon take an even greater significance. Clearly, the SCC is the logical organ to discuss issues such as the interpretation of and possible amendments to the ABM Treaty, as well as methods for keeping the Treaty viable. Even though withdrawal by one party would terminate the Treaty, if the issue were to be raised, the SCC might be the appropriate forum. Of course, it is highly probable that the decision to denounce the Treaty would be made at the highest level of government, bypassing the SCC.

B. Current Efforts at Flexible Interpretation

As noted in the last chapter, the U.S. programs involving national missile defense have not yet reached a stage where they are a threat to the ABM Treaty. However,

²⁸⁶ Chayes & Chayes, Living Under a Treaty Regime: Compliance, Interpretation, and Adaptation, in Chayes & Doty supra note 32, at 207.

²⁸⁷ For a discussion of this agreement see notes 197-98 and accompanying text.

concern has been expressed that the aggressive work being done by the Pentagon to develop theater ballistic missile defenses does, or soon will, violate the ABM Treaty.²⁸⁸

These concerns have also been raised in the SCC.

To develop these systems, and at the same time maintain the viability of the ABM Treaty, the Clinton Administration has looked to the SCC as a forum to negotiate an interpretation of the Treaty which would be acceptable to both parties. The main focus of current talks has been to define the difference between strategic ballistic missile defense, limited by the Treaty, and tactical ballistic missile defense, allowed by the Treaty.

In November 1993, the U.S. Administration proposed in the SCC that a tactical ballistic missile defense system be defined as a system which has not demonstrated an intercept capability against missiles traveling at speeds greater than 5 kilometers a second.²⁸⁹ In Spring 1994, Russia offered a counterproposal whereby interceptor missiles would be limited to a speed no faster than 3 kilometers a second.²⁹⁰ This position was unacceptable to the U.S. Administration as it could adversely affect currently planned tactical BMD systems.²⁹¹ Nonetheless, the Administration expressed its

²⁸⁸ See Pike and Corbin, Taking Aim at the ABM Treaty: THAAD and U.S. Security, Arms Control Today, May 1995, at 3; Hersch supra note 29; Mendelsohn and Rhinelander, supra note 101, at 8. A New Threat to the ABM Treaty: The Administration's TMD Proposal, Arms Control Today, Jan./Feb. 1994, at 11

²⁸⁹ Lockwood, U.S. Continues to Press for Looser Limits on ABM Treaty, Arms Control Today, Sept. 1994, at 24.

²⁹⁰ Id.

willingness to limit the speed of their current interceptors to 3 kilometers a second, provided it retained the right to revisit the speed issue at a later date.²⁹²

American efforts, at this time, are directed at maintaining the ABM Treaty, while proceeding with the development of THAAD. To achieve these arguably incompatible goals it will be necessary to have both parties agree to a more liberal interpretation of the Treaty. As previously discussed, one method of interpreting a treaty is to seek clarification in a subsequent agreement concluded by the parties.²⁹³ However, this avenue for interpretation, is currently unavailable as the Administration has suspended discussions in the SCC.

Even if the talks were to resume and resolve this issue to the satisfaction of the U.S. Administration, the new interpretation would also have to satisfy domestic concerns. Namely, some members of the U.S. Congress have argued that this new "interpretation" would amount to an amendment to the original Treaty and therefore would require the advise and consent of the Senate.²⁹⁴ For example, Senator Joseph Biden has stated that any changes to Article VI(a) would be an amendment requiring Senate approval. In response, John Holum, the Director of the Arms Control and Disarmament Agency, stated that Congress will be involved in this

²⁹¹ Id.

²⁹² Id.

²⁹³ Vienna Convention, supra note 218, Art. 31(3)(a).

²⁹⁴ Lockwood, Senators Appear Skeptical of ABM Treaty Modifications, Arms Control Today, Apr. 1994, at 17.

matter, but that it is too early to tell whether what is being called the "Agreed Clarification" will require an amendment to the Treaty or not. "What the final agreed clarification is called, as a legal matter, must properly await the outcome of the negotiations. We can't discern the form until we know the substance."²⁹⁵ As the negotiations in the SCC have not so far borne fruit, this potential confrontation between the Senate and the Administration will have to wait.

It should be emphasized that the SCC is not the only forum for interpreting the ABM Treaty. With negotiations in the Commission stalled, a number of high level meetings have occurred between the U.S. and Russian administrations. Both Presidents have pledged to resolve the contentious issues in the shortest possible time. Although this has not yet occurred, the U.S. Administration has recently announced that it will proceed with initial demonstration and validation tests of THAAD because it considers these activities Treaty compliant.²⁹⁶ Not surprisingly, Russia

²⁹⁵ Id.

²⁹⁶ Lockwood, Clinton to Seek TMD Understanding with Yeltsin at Moscow Summit, Arms Control Today, May 1995, at 22. It is interesting to note that the U.S. Administration has demonstrated some inconsistencies in interpreting the Treaty. In a hearing before the Senate Foreign Relations Committee, on March 10, 1994 Senator Paul Simon asked "whether it was true that if we don't modify the treaty we can't develop THAAD?" Hollum's response was "correct." He also stated that the "clarifications" of the demarcation between strategic BMD systems and tactical BMD systems would be "accomplished by agreement with the treaty's other parties, and not by a unilateral U.S. decision." Lockwood, supra note 294, at 17. By January 1995 the U.S. Administration notified Russia and Congress that "THAADs

immediately objected, claiming that THAAD testing would violate the prohibition in the Treaty against testing mobile land-based ABM systems or their components. As this debate continues it highlights the strain being placed on the ABM Treaty by trying to mold it to accommodate planned ballistic missile defense systems.

C. Modification Process

An option available to both parties would be to modify the ABM Treaty in accord with the Vienna Convention. The Convention provides in Article 39 that "[a] treaty may be amended by agreement between the parties." This same provision can be found in the Restatement.²⁹⁷ An amendment to the Treaty would circumvent any need for unilateral interpretations by either party in justification of future tactical missile defenses as Treaty compliant. The duties of the SCC specifically include negotiating amendments and this would be, at least initially, the proper forum for the task.

Under U.S. constitutional law an amendment to a treaty must go through the same ratification process as the original treaty. Therefore, if an amendment is successfully negotiated it will have to withstand the rigors of the advise and consent of the Senate. The clear benefit of this

initial demonstration and validation tests would be considered treaty compliant." Lockwood, supra note 296.
²⁹⁷ Restatement, supra note 218, § 334.

complex and time-consuming procedure is that it provides an opportunity for a full and frank analysis of these programs in the context of the ABM Treaty. The U.S. public should also benefit from the debate. An amendment to the Treaty would provide both contracting parties with a cleaner and mutually acceptable product, and is therefore preferable to developing "flexible interpretations" in order to allow the development of the desired systems.

D. Withdrawal Process

Another option available to both parties is to withdraw from the ABM Treaty. Once again, the Vienna Convention and the Restatement provide appropriate guidance. The Vienna Convention includes a number of provisions relevant to withdrawal from a treaty. The Convention allows for withdrawal if the Treaty specifically provides for unilateral withdrawal, or with the agreement of both parties. Article 60 addresses termination of a treaty if there is a material breach by one of the parties. Article 62 specifies the rules regarding terminating treaties based on a fundamental change of circumstances -- limiting this option to situations where: "(a) the existence of those circumstances constituted an essential basis of the consent of the parties to be bound by the treaty; and (b) the effect of the change is radically to transform the extent of obligations still to be performed under the treaty."²⁹⁸

The relevant section on withdrawal in the Restatement is Article 332:

(1) The termination or denunciation of an international agreement, or the withdrawal of a party from an agreement, may take place only

(a) in conformity with the agreement or

(b) by consent of all the parties

(2) An agreement that does not provide for termination or denunciation or for the withdrawal of a party is not subject to such action unless the right to take such action is implied by the nature of the agreement or from other circumstances.

The Restatement, like the Vienna Convention, allows for treaty termination due to a fundamental change in circumstances and outlines the governing procedures.²⁹⁹ In this respect, the difference between the Vienna Convention and the Restatement is that in the dispute resolution procedures the Convention includes submission of the matter to the International Court of Justice.

The three possible bases for United States withdrawal would be material breach of the agreement by Russia, fundamental change of circumstances, and the provision of Article XV of the Treaty. At one point the United States conceivably could have terminated the Treaty citing the phased-array radar at Krasnoyarsk.³⁰⁰ This clearly was a material breach of the ABM Treaty, the offense eventually admitted by the Soviets. The United States learned of the

²⁹⁸ Vienna Convention, supra note 220, arts. 62 1a.-1b.

²⁹⁹ Restatement, supra note 218, §§ 336, 337.

³⁰⁰ See supra notes 284-85 and accompanying text.

radar in 1983 and raised its concern in the SCC. The USSR agreed in 1989 to dismantle the radar. Twelve years after discovery of the radar and six years after its dismantlement, the U.S. cannot in good faith use the Krasnoyarsk radar to terminate the Treaty.

Another possible option available would be for the U.S. to claim a fundamental change of circumstances. As is clear from the Vienna Convention and the Restatement, this avenue for terminating a treaty is fairly narrow.³⁰¹ The major difference between today and 1972, concerning the ABM Treaty, is an increase in the number of countries with ballistic missiles and the advancement in ABM technology. However, both of these developments were foreseen at the time of the ABM Treaty; China already had a ballistic missile capability, and Agreed Statement D discussed future technological advances. The other major change between then and now is the dissolution of the Soviet Union, but this fact does not radically "transform the extent of obligations still to be performed under the agreement."³⁰²

Legally, the least controversial basis for the U.S. withdrawal from the ABM Treaty can be found in Article XV of the Treaty which provides:

Each Party shall, in exercising its national sovereignty, have the right to withdraw from this Treaty if it decides that extraordinary events related to the

³⁰¹ The Restatement provides essentially the same definition as the Vienna Convention. Restatement, supra note 218, § 336.

³⁰² Vienna Convention, supra note 220, Art. 62.

subject matter of this Treaty have jeopardized its supreme interests. It shall give notice of its decision to the other Party six months prior to withdrawal from the Treaty. Such notice shall include a statement of the extraordinary events the notifying Party regards as having jeopardized its supreme interest.³⁰³

The big question is which events would the United States designate as jeopardizing its supreme interests? The requirement of Article XV is not as demanding as that necessary to justify the invocation of the clause *rebus sic stantibus* (fundamental change in circumstances). The U.S. could argue that the proliferation both of states with a growing ballistic missile capability and states with weapons of mass destruction presents a situation quite different from that of 20 years ago.³⁰⁴ In addition, at the time of the signing of the Treaty the only significant threat to the U.S. and its forces was the might of the Soviet Union. The new military situation in the world represents a serious threat to the supreme interest of the United States and its allies. As there is no objective standard to measure the sufficiency of this justification, each party to the Treaty is the sole judge of what represents a threat to its

³⁰³ This was not a provision unique to this Treaty the parties had included it in previous arms control agreements to include the 1963 treaty prohibiting the explosion of nuclear weapons in space and 1968 non-proliferation treaty.

³⁰⁴ The SCC was tasked to review changes in the general strategic situation indicating that the parties realized a change in that situation might impact the treaty. "This is not limited to developments in the U.S. and U.S.S.R., but includes developments in third countries with might affect the SALT agreements." Rhinelander, The SALT I Agreements, in Willrich and Rhinelander, supra note 154, at 154.

"supreme interests". Thus the Russia would have no apparent legal basis to challenge the U.S. action. Also, it is quite unlikely that Russia would seek intervention of the International Court of Justice in the matter.

However, simply because the U.S. Administration could articulate a seemingly plausible justification for lawful withdrawal, it does not necessarily follow that withdrawal would occur. Justifying its action vis-a-vis Russia would not resolve the more difficult issue for any administration -- termination on a national level. One area of U.S. constitutional law which has not been adequately clarified is who can terminate a treaty. The U.S. Constitution provides guidance for the entering into treaty relations, but leaves unaddressed the issue of termination. This anomaly, the focus of numerous commentaries,³⁰⁵ remains unresolved by the final arbiter of such conflicts, the U.S. Supreme Court.

This question was at issue in Goldwater v. Carter.³⁰⁶ In 1978, President Carter announced that the United States was terminating the 1954 Mutual Defense Treaty with Taiwan. This unilateral act by the President, without any Senate involvement, was challenged by Senator Goldwater and other members of Congress. A District Court held that the

³⁰⁵ See, e.g., D. Adler, The Constitution and The Termination of Treaties (1986); L. Henkin, Foreign Affairs and the Constitution (1972); Comment, Star Wars Meets the ABM Treaty: The Treaty Termination Controversy, 10 N.C. J. Int'l L & Com. Reg. 701 (1985).

³⁰⁶ 444 U.S. 996 (1979).

President did not have the authority to unilaterally terminate the Treaty. The Court of Appeals reversed, holding that the President could act alone without any congressional involvement. The Supreme Court failed to resolve the issue, finding that this was a political question. The Court reasoned that because Congress had not passed legislation, no dispute between the two branches of government existed and therefore the matter was not properly before the Court. The practice by the United States in terminating treaties also fails to provide useful guidance for the correct procedure as many different procedures have been used.³⁰⁷

The Restatement takes the position in section 339 that the President has the power to terminate an agreement in accordance with its terms.³⁰⁸ However, even if the President could act alone, he would be wise to involve the Senate when dealing with a treaty as internationally important as the ABM Treaty. Due to the universally strong support for the ABM Treaty, no rational President would dare to denounce it without the solid support of the Senate. The uproar caused in the U.S. and abroad by the Reagan Administration's broad interpretation of the Treaty should cause a President to long reflect before attempting to terminate this arms

³⁰⁷ Congressional Research Service, The Library of Congress, Treaties and Other International Agreements: The Role of the United States Senate 161-65 (1984).

³⁰⁸ For a detailed contextual analysis of why the correct procedure includes action by the Senate see Adler, supra note 305.

control agreement. It is worth recalling that even at the height of the SDI debate President Reagan never recommended withdrawal from the Treaty. Hence, absent some truly "extraordinary event", withdrawal is not a viable option.

CONCLUSION

Current research and development plans for United States ballistic missile defenses do not seem to violate the ABM Treaty. However, more or less persuasive arguments can be made both for and against the legality of these systems. The text of the Treaty with its appendices, the intent, and subsequent practice of the parties can be used in good faith to support either argument. The failure to define the difference between tactical and strategic systems alone, left a huge opening in the Treaty to drive at least some future BMD systems through.

The relative ease with which the Treaty can be interpreted to justify a BMD system's compliance highlights the Treaty's weaknesses. Should the contracting parties chose to do nothing about the Treaty, arguments over its "correct" interpretation will be perpetuated. One could, therefore, conclude that the ABM Treaty, as written, has outlived its usefulness. The strategic situation today is vastly different than it was twenty-three years ago when the Treaty was negotiated. The Treaty's foundation, for both parties, was a fear of a devastating nuclear attack. The cold war is over and the new strategic situation needs to be addressed. The threat of nuclear war between the two nuclear superpowers has significantly decreased whereas the threat of ballistic missile attack from a third party has

increased, both for the United States, and to an even greater extent, for Russia.

Failure to respond before too long to this new reality could have serious consequences for the maintenance of peace and security. Attempts to save the Treaty by flexible interpretations or amendments could only exacerbate the problem. Future negotiations should be aimed at replacing the ABM Treaty with a treaty based on new defense needs, reflecting the new threats now confronting both parties.

APPENDIX A

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